



MPC

User Guide
English

Manual Version 1.5

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Welcome to the MPC

Thanks for choosing the MPC!

Fusing Akai Professional's legendary MPC layout and workflow with the power of your computer, MPC software is an unrivaled instrument for music production.

MPC Renaissance is a fully integrated hardware-software system, allowing you to create using classic hardware controls and an integrated pop-up display, while its exclusive MPC software empowers you with unprecedented, expandable production capabilities on your Mac or PC.

MPC Studio offers the most streamlined MPC experience yet. At under one-inch thin, with low-profile controls and a brushed aluminum body, it's made to move. MPC Studio merges real MPC pads, iconic workflow, and the same MPC software used by MPC Renaissance to give you a fully integrated portable production solution.

Welcome to the MPC family.

— The Akai Professional Team

System Requirements and Product Support

For complete system requirements, compatibility information, and product registration, visit the Akai Professional website: akaiprompc.com.

For additional support, visit akaiprompc.com/support.

About This Manual

This manual was written to help you get familiar with the MPC hardware and software.

To avoid confusion, the terminology in this manual is based on the MPC parameter names. You will find the various terms explained in the **Glossary** at the end of this manual.

We also used a uniform set of symbols to show topics of particular interest or significance:

Information: Important or helpful information on a given topic.

Hardware: How to use a software feature with your MPC hardware's controls. Note that these paragraphs are not the only parts of the manual that mention the MPC hardware!

All buttons, controls, and parameters are highlighted in **bold** characters throughout the manual.

Examples:

- "Press the **Prog Edit** button."
- "Turn the **Level** dial."

Specific settings or values are indicated in *italic* characters.

Examples:

- The **Velocity** ranges from *0* to *127*.
- Set your **Sample Play** to *One-Shot* or *Note-On*.

Some parts of this manual refer to other relevant sections, which are cited in ***bold and italic*** characters.

Examples:

- Read the ***Important Notes*** section before proceeding.
- For more information about installing the necessary drivers and software, please see the ***Installation*** section.

Important Notes

- Read the included *Safety and Warranty Manual* before using the MPC hardware.
- Before getting started and connecting devices to the MPC hardware or turning the hardware on/off, make sure all devices are switched off.
- Before connecting the MPC hardware to your computer, install the drivers and software. Visit **akaiprompc.com** to download the latest versions (recommended), or insert the included DVD. Refer to the **Installation** section for more information.

Installation

Before installing the MPC software, make sure your computer meets the system requirements described at **akaiprompc.com**. This applies whether you'll use MPC software as your host software or as a plugin.

Windows®

From a DVD:

1. Power on your computer and operating system, and insert the DVD into your DVD drive. If you have enabled the Autostart function in Windows, the installer will start automatically and you can proceed with Step 5 below. If not, please proceed as follows:
2. Launch the Explorer or open the window **My Computer**.
3. Double-click the icon for the drive that holds the DVD.
4. Double-click the **MPC** installer icon. This launches a special installation program.
5. Follow the on-screen instructions.

Important: After installing the MPC software, you need to unlock the program on your computer. Please refer to **Unlocking the MPC Software**.

From a downloaded installer file:

1. Open the folder where the downloaded **.zip** file is located.
2. Double-click the file to extract it.
3. Double-click the **MPC** installer icon. This launches a special installation program.
4. Follow the on-screen instructions.

Important: After installing the MPC software, you need to unlock the program on your computer. Please refer to ***Unlocking the MPC Software***.

Mac® OS X®**From a DVD:**

1. Power on your computer and operating system, and disable any system activity monitoring software or extension. Then, insert the DVD into your computer's DVD drive.
2. If required, double-click the MPC icon to view the DVD's contents.
3. Double-click the **MPC** installer icon. This launches a special installation program.
4. Follow the on-screen instructions.

Important: After installing the MPC software, you need to unlock the program on your computer. Please refer to ***Unlocking the MPC Software***.

From a downloaded installer file:

1. Open the folder where the downloaded **.zip** file is located.
2. Double-click the file to extract it.
3. Double-click the **MPC** installer icon. This launches a special installation program.
4. Follow the on-screen instructions.

Important: After installing the MPC software, you need to unlock the program on your computer. Please refer to ***Unlocking the MPC Software***.

Unlocking the MPC Software

Follow these steps to unlock the MPC software before using it.

1. Connect your MPC hardware to a USB port on your computer. If you are using MPC Renaissance, connect it to a power source, too.
2. Power on the MPC hardware.
3. Open the MPC software.
4. In the dialogue box that appears, click **Unlock Now**.
5. Enter your information in the window that appears.
6. If your computer is connected to the Internet, click **Unlock Now**, and enjoy your MPC!
7. If your computer is not connected to the Internet, follow these additional steps:
8. Click **Use Web Form**.
9. The window that appears will have your name, serial number, and software ID number. Click **Save Details** to save this information as a **.txt** file, or copy the information from each field into another file of your choosing.
10. On a computer connected to the Internet, go to **authorizations.akaipro.com/MPC**, enter the copied information, and click **Unlock My MPC**.
11. Copy the unlock code from the window that appears.
12. In your MPC software, go to the window from Step 5 and click **Enter Code**.
13. Enter your name and the unlock code generated by the webpage.
14. Click **Unlock**, and enjoy your MPC!

Navigation and Data Entry Controls

1. **Display:** This LCD shows all the information relevant to MPC Renaissance's current operation. Much of this information is also shown in the software. Use the **Cursor Buttons** to navigate through the display, and use the **Data Dial**, and **-/+** buttons to adjust the currently selected setting/parameter. Use the **Mode** buttons to change what page is shown, and use the **F-Buttons** to change what tab is shown.

Note: You can adjust the display contrast by holding down **Shift** and turning the **Data Dial**.

2. **F-Buttons:** Press one of these buttons to select its corresponding tab, shown above the button in the display.
3. **Cursor Buttons:** Use these buttons to navigate through the fields of menus and options shown in the display.
4. **Data Dial:** Use this dial to scroll through the available menu options or adjust the parameter values of the selected field in the **Display**.
5. **-/+:** Press these buttons to increase/decrease the value of the selected field in the display.
6. **Numeric Keypad:** If the selected field in the **Display** is a number, use these numbered buttons as a standard numeric keypad to enter a value. Press the keypad's **Enter** to enter it.
7. **Undo / Redo:** Press this button to undo your last action. Hold down **Shift** and press this button to redo the last action you undid.

Pad and Q-Link Knob Controls

8. **Q-Link Knobs:** Use these touch-sensitive knobs to adjust various parameters and settings. The LEDs surrounding each knob indicate the knob's current position.
9. **Q-Link Trigger:** Hold this button down, then touch one of the **Q-Link Knobs** to make that knob's parameter's value jump to its minimum or maximum (depending on the Trig parameter in the software).
10. **Pads:** Use these pads to trigger drum hits or other samples in your software. The pads are velocity-sensitive and pressure-sensitive, which makes them very responsive and intuitive to play. The pads will light up different colors, depending on how hard you play them (ranging from yellow at a low velocity to red at the highest velocity). To disable (or re-enable) these lights, press **Pad Assign** then **F6 (Velo Col)**.
11. **Pad Bank Buttons:** These 4 buttons switch among Pad Banks A–H. Between these 8 banks with 16 pads per bank, you can access up to 128 MIDI events using the pads.

12. **Pad Assign / Pad Copy:** Press this button to assign a sample to a pad. In the display, the 4 x 4 grid that appears represents the 16 pads. Use the **Cursor Buttons** to navigate through the grid, and use the **Data Dial** or **-/+** buttons to select a Program (when the Program field is highlighted) or a sample (when a pad is highlighted).

Hold down **Shift** and press this button to copy the samples and parameters from one pad to another. Use the **Cursor Buttons** to select the From Pad ("source") or To Pads ("destination") field and hit a pad to select it (you can copy to multiple pads). Use the **F-Buttons** to confirm or cancel the operation.

13. **Full Level / Half Level:** Press this button to activate/deactivate Full Level. When activated, the pads always play back at a maximum velocity (127), no matter how hard or soft you hit them.

Hold down **Shift** and press this button to activate/deactivate Half Level. When activated, the pads always play back at half-velocity (63).

14. **16 Level:** Press this button to activate/deactivate 16 Level. When activated, the last pad that was hit will be temporarily copied to all 16 pads. The pads will now output the same note number as the initial pad, but a selectable parameter will be fixed a specific value (ascending in value from the lowest to highest pad), regardless of how hard you hit each pad. In the software, in the window that appears, click the **Type** menu to select the parameter: *Velocity, Tune, Filter, Layer, Attack, or Decay*.

You can change the pad by clicking the **Pad** drop-down menu in the window that appears. Alternatively, you can press and hold the **16 Level** button, press the desired pad, and then release both.

15. **Note Repeat / Latch:** Hold this button down and press a pad to retrigger that pad's sample at a rate based on the current Tempo and Time Correct settings (the available Time Correct settings will appear in the display, which you can select with the **F-Buttons**). Hold down **Shift** and press this button to latch the Note Repeat feature. When latched, the button does not need to be held down for Note Repeat to be activated. Press **Note Repeat** once more to unlatch it.

Mode / View Controls

16. **Shift:** Hold this button down to access some buttons' secondary functions (indicated by orange writing). You can also double-press it to "latch" it for a few seconds. To unlatch it, press it once more or wait a few seconds for it to unlatch automatically.
17. **Main / Track:** Press this button to enter Main Mode in the display and software. Hold down **Shift** and press this button to enter Track View Mode in the display and software.

18. **Browser / Save:** Press this button to view the File Browser in the display. Hold down **Shift** and press this button to save the current Project (including its samples, Programs, Sequences, and Songs).
19. **Prog Edit / Q-Link:** Press this button to enter Program Edit Mode in the display and software. Hold down **SHIFT** and press this button to assign a parameter to a **Q-Link Knob**: use the **Cursor Buttons** to select the desired **Q-Link Knob**, then use the **Data Dial** or **-/+** buttons to select the desired parameter.
20. **Prog Mix / Track Mix:** Press this button to enter Program Mixer Mode in the display and software. Hold down **Shift** and press this button to enter Track Mixer Mode in the display and software.
21. **Seq Edit / Effects:** Press this button to enter Sequence Edit Mode. Hold down **Shift** and press this button to enter the Effects page on the hardware, where you can select and route effects as well as edit effects' parameters.
22. **Sample Edit / Sample Rec:** Press this button to enter Sample Edit Mode in the display and software. Hold down **Shift** and press this button to enter Sample Record Mode in the display and software.
23. **Song / Other:** Press this button to enter Song Mode in the display and software. Hold down **Shift** and press this button to enter MIDI Control Mode, which lets you edit various MIDI parameters for the pads, Q-Link Knobs, and certain buttons on your hardware while in this mode.
24. **Step Seq:** Press this button to enter Step Sequence Mode in the display and software.
25. **Next Seq:** Press this button to enter Next Sequence Mode in the display and software.
26. **Track Mute / Pad Mute:** Press this button to enter Track Mute Mode in the display and software. Hold **Shift** and press this button to enter Pad Mute Mode in the display and software.
27. **Window / Full Screen:** When this button is lit, it means the selected field in the display contains additional functions; press this button to access them. Use the **F-Buttons**, **Cursor Buttons**, and **Data Dial** or **-/+** buttons to execute (or cancel) these additional functions.
Hold **Shift** and press this button to switch between Full Screen and Half Screen Modes in the software. In Full Screen Mode, the workspace occupies the whole window. In Half Screen Mode, the parameter controls (Q-Link Knobs, pads, Sequence and Track information, Project Information, etc.) are shown underneath the workspace.
28. **Project / Folder 1:** Press this button to view only Project files in the File Browser. Hold down **Shift** and press this button to select the File Browser's Folder 1 shortcut.
29. **Sequence / Folder 2:** Press this button to view only Sequence files in the File Browser. Hold down **Shift** and press this button to select the File Browser's Folder 2 shortcut.

- 30. **Program / Folder 3:** Press this button to view only Program files in the File Browser. Hold down **Shift** and press this button to select the File Browser's Folder 3 shortcut.
- 31. **Sample / Folder 4:** Press this button to view only Sample files in the File Browser. Hold down **Shift** and press this button to select the File Browser's Folder 4 shortcut.
- 32. **No Filter / Folder 5:** Press this button to view all files in the File Browser. Hold down **Shift** and press this button to select the File Browser's Folder 5 shortcut.

Transport and Recording Controls

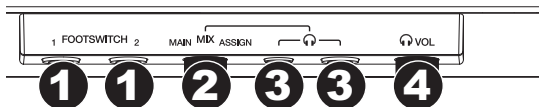
- 33. **Play:** Press this button to play the Sequence from the audio pointer's current position.
- 34. **Play Start:** Press this button to play the Sequence from its start point.
- 35. **Stop:** Press this button to stop playback.
- 36. **Rec:** Press this button to record-arm the Sequence. Press **Play** or **Play Start** to start recording. Recording in this way (rather than using **Overdub**) erases the events of the current Sequence. After the Sequence plays through once while recording, Overdub will be enabled.
- 37. **Overdub:** Press this button to enable Overdub, which allows you to record note events in a Sequence without overwriting any previously recorded note events. You can enable Overdub either before or during recording.
- 38. **< / > (| < / > |):** Use these buttons to move the audio pointer left/right, one step at a time. Hold **Locate** and press one of these buttons to move the audio pointer to the previous/next event in the Sequence Grid.
- 39. **<< / >> (Start / End):** Use these buttons to move the audio pointer left/right, one bar at a time. Hold **Locate** and press one of these buttons to move the audio pointer to the start or end of the Sequence Grid.
- 40. **Locate:** Hold this button down to activate the secondary functions of the **< / >** and **<< / >>** buttons (i.e., **| < / > |** and **Start / End**, respectively).
- 41. **Erase:** As a Sequence is playing, hold this button down and press a pad to delete the note event for that pad at the current playback position. This is a quick way to delete note events from your Sequence without having to stop playback.
- 42. **Tap Tempo:** Press this button in time with the desired tempo to enter a new tempo (in BPM) in the software.

I/O and Level Controls

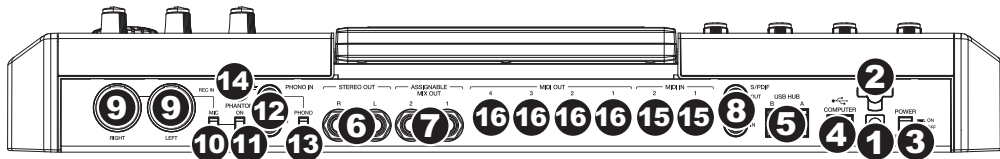
43. **Mic In / Phono In Switch:** Use this switch to select the **Mic In** or **Phono In** jacks on the rear panel. If you are using a mic or other line-level audio source connected to the **Mic In** jacks, select **Mic In**. If you are using a phono-level device like a turntable connected to the **Phono In** jacks, select **Phono In**.
44. **Rec Gain:** Use this knob to adjust the gain of the incoming signal from the **Mic In** or **Phono In** jacks on the rear panel. Monitor the recording level by viewing the level meter (LEDs) above the **Mic In / Phono In Switch**. Be careful when setting this knob at higher levels, which can cause the signal to distort.
45. **Direct Mon:** Use this knob to adjust the balance between the **Input** and **Comp** signals in the headphones. The **Input** signal consists of the **Mic In** or **Phono In** jacks—turn the knob all the way to **Input** for zero-latency direct monitoring. The **Comp** signal is the normal software playback. When not recording, we recommend turning this knob all the way to the **Comp** position.
46. **Main Volume:** Use this knob to adjust the volume level of the **Stereo Out** jacks.
47. **Vintage Mode:** Press this to toggle through the available Vintage Modes. The MPC3000 and MPC60 settings emulate the sounds of those classic MPCs, while the **Other** setting emulates the sound of vintage sampling drum machines. When none of the LEDs are lit, Vintage Mode is off.

Front Panel

1. **Footswitch Inputs:** Connect optional 1/4" TS footswitches to these inputs.
2. **Mix Knob:** Use this knob to adjust the balance between the **Main** and **Assign** signals in your headphones. The **Main** signal is the **Stereo Outs**. The **Assign** signal is the **Assignable Mix Outs 1 and 2**.
3. **Headphones:** Connect your headphones (not included) to one of these standard TRS outputs (1/8" or 1/4"). Use the **Mix Knob** to determine what signal is heard in the headphones.
4. **Headphones Volume:** Use this knob to adjust the headphone volume.



Rear Panel

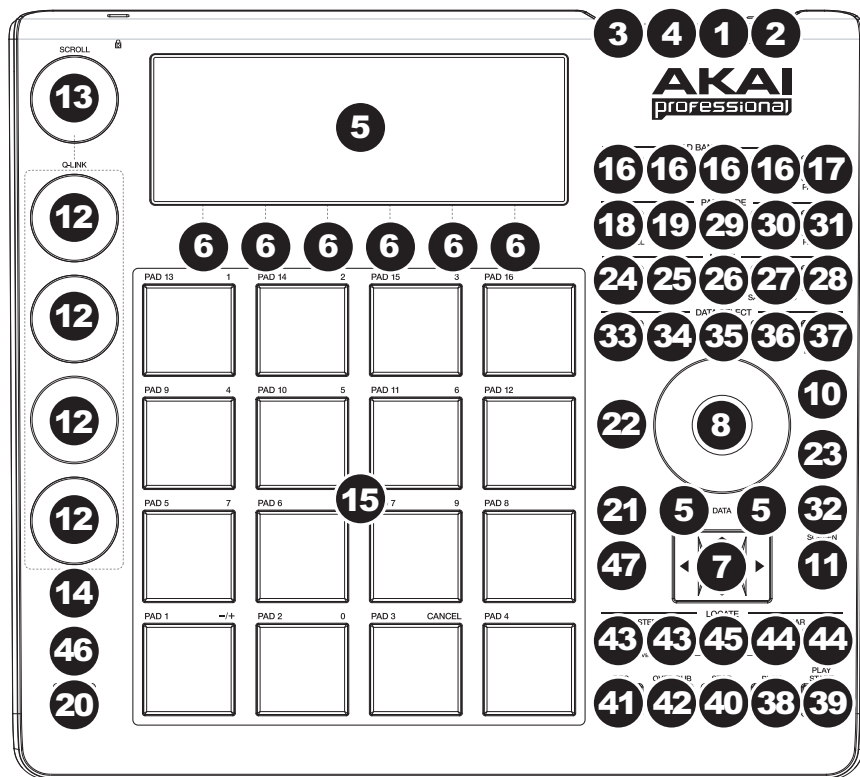


- Power Input:** Connect a 12V DC, 2A power adapter (center pin positive) to this jack then into an electrical outlet.
- Power Adapter Restraint:** You can secure a power adapter cable to this restraint to prevent it from accidentally unplugging.
- Power Switch:** Turns MPC Renaissance's power on/off.
- Computer USB Port:** Use the included USB cable to connect this high-retention-force USB port to an available USB port on your computer. This connection allows MPC Renaissance to send/receive MIDI and audio data to/from the MPC software.
- USB Hub Outputs:** You can connect additional USB devices (controllers, hard drives, etc.) to these powered, high-speed USB 2.0 ports. In addition to being an audio interface, these ports allow MPC Renaissance to function as a powered USB hub when it is powered on.
- Stereo Out:** Connect these 1/4" TRS outputs to your speaker system (not included). The signal sent out of these outputs is the main mix. In the MPC software, you can set what is routed to these outputs in the Program Mixer tab, by selecting 1,2 as the **Out** for one pad or multiple pads.
- Assignable Mix Out:** Connect these 1/4" TRS outputs to an external mixer (not included). The signal sent from these outputs is full-volume (0 dB). In the MPC software, you can set what is routed to these outputs in the Program Mixer tab, by selecting 3,4 as the **Out** for one pad or multiple pads.
- S/PDIF In/Out:** Use standard RCA cables to connect these jacks to devices that can send/receive digital audio.
- Mic In:** Connect an external sound source or microphone to these jacks using standard 1/4" TRS or XLR cables. Make sure to set the **Mic / Line Switch** appropriately.
- Mic / Line Switch:** Set this switch appropriately for the device you connected to the **Mic In** jacks. If your sound source is a microphone, set it to **Mic**. If your sound source is a line-level device, like an external mixer or keyboard, set it to **Line**.

11. **Phantom Power Switch:** This switch activates and deactivates phantom power. When activated, phantom power supplies +48V to both **Mic In** inputs. Please note that most dynamic microphones do not require phantom power, while most condenser microphones do. Consult your microphone's documentation to find out whether it needs phantom power.
12. **Phono In:** Connect these RCA inputs to an external sound source (e.g., a turntable, CD player, etc.). Make sure to set the **Phono / Line Switch** appropriately.
13. **Phono / Line Switch:** Flip this switch to the appropriate position, depending on the device connected to the **Phono In** jacks. If you are using phono-level turntables, set this switch to **Phono** to provide the additional amplification needed for phono-level signals. If using a line-level device, such as a CD player or sampler, set this switch to **Line**.
14. **Ground Terminal:** If you connected a phono-level turntable to the **Phono In** jacks and are hearing a low hum or buzz, this could mean that the turntable is not grounded. If the turntable has a grounding wire, connect it to this terminal.
Note: Some turntables have a grounding wire built into the RCA connection and, therefore, nothing needs to be connected to the grounding terminal.
15. **MIDI In:** Use a five-pin MIDI cable to connect the MIDI Out of an optional external MIDI device to the **MIDI In** of MPC Renaissance.
16. **MIDI Out:** Use a five-pin MIDI cable to connect the **MIDI Out** of MPC Renaissance to the MIDI In of an optional external device.

MPC Studio

Top Panel



Power and I/O

1. **Computer USB Port:** Use the included USB cable to connect this high-retention-force USB port to an available USB port on your computer. This connection allows MPC Studio to send/receive MIDI and audio data to/from the MPC software.
2. **Power Switch:** Turns MPC Studio's power on/off.
3. **MIDI In:** Use the included 1/8"-MIDI adapter and a five-pin MIDI cable to connect the MIDI Out of an optional external MIDI device to the **MIDI In** of MPC Studio.
4. **MIDI Out:** Use the included 1/8"-MIDI adapter and a five-pin MIDI cable to connect the **MIDI Out** of MPC Studio to the MIDI In of an optional external device.

Important: Do **NOT** connect audio devices (e.g., headphones, monitors, etc.) to the 1/8" **MIDI In** or **MIDI Out** jacks. Use the included 1/8"-MIDI adapters to connect MIDI devices only.

Navigation and Data Entry Controls

5. **Display:** This LCD shows all the information relevant to MPC Studio's current operation. Much of this information is also shown in the software. Use the **Cursor Buttons** to navigate through the display, and use the **Data Dial**, and **-/+** buttons to adjust the currently selected setting/parameter. Use the **Mode** buttons to change what page is shown, and use the **F-Buttons** to change what tab is shown.

Press and hold **Shift** and turn the **Data Dial** to adjust the contrast of the display.

6. **F-Buttons:** Press one of these buttons to select its corresponding tab, shown above the button in the display.
7. **Cursor Buttons:** Use these buttons to navigate through the fields of menus and options shown in the DISPLAY.
8. **Data Dial:** Use this dial to scroll through the available menu options or adjust the parameter values of the selected field in the display.
9. **-/+:** Press these buttons to increase/decrease the value of the selected field in the display.
10. **Numeric:** If the selected field in the display is a number, you can press **Numeric** and use the pads as a standard numeric keypad to enter a value. The numbers are printed in green above the pads.
11. **Undo / Redo:** Press this button to undo your last action. Hold down **Shift** and press this button to redo the last action you undid.

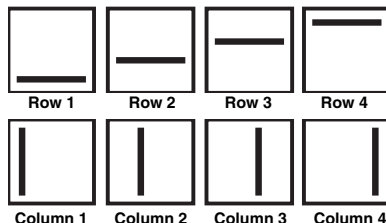
Pad and Q-Link Knob Controls

12. **Q-Link Knobs:** Use these touch-sensitive knobs to adjust various parameters and settings. The knobs can control one column of parameters at a time. Use the **Scroll Knob** above them to change which column or row of parameters they currently control.

In modes where the display shows a "4 x 4" array of parameters, you will see an additional indicator on the top or left side of the array, indicating the currently controlled row/column.

The Q-Link Knobs control **columns** of parameters in Main Mode, Program Edit Mode, Track View Mode, Sample Edit Mode, and Step Sequence Mode.

The Q-Link Knobs control **rows** of parameters in Program Mixer Mode and Track Mixer Mode.



13. **Scroll Knob:** Use this knob to change which column of parameters the **Q-Link Knobs** currently control.
14. **Q-Link Trigger:** Hold this button down, then touch one of the **Q-Link Knobs** to make that knob's parameter's value jump to its minimum or maximum (depending on the Trig parameter in the software).
15. **Pads:** Use these pads to trigger drum hits or other samples in your software. The pads are velocity-sensitive and pressure-sensitive, which makes them very responsive and intuitive to play. The pads will light up different colors, depending on how hard you play them (ranging from yellow at a low velocity to red at the highest velocity). To disable (or re-enable) these lights, press **Pad Assign** then **F6 (Velo Col)**.
- If the selected field in the display is a number, you can press **Numeric** and use the pads as a standard numeric keypad to enter a value. The numbers are printed in green above the pads.
16. **Pad Bank Buttons:** These 4 buttons switch among Pad Banks A–H (press and hold **Shift** to access Banks E–H). Between these 8 banks with 16 pads per bank, you can access up to 128 MIDI events using the pads.

17. **Pad Assign / Pad Copy:** Press this button to assign a sample to a pad. In the display, the 4 x 4 grid that appears represents the 16 pads. Use the **Cursor Buttons** to navigate through the grid, and use the **Data Dial** or **-/+** buttons to select a Program (when the **Program** field is highlighted) or a sample (when a pad is highlighted).

Hold down **Shift** and press this button to copy the samples and parameters from one pad to another. Use the **Cursor Buttons** to select the **From Pad** ("source") or **To Pads** ("destination") field and hit a pad to select it (you can copy to multiple pads). Use the **F-Buttons** to confirm or cancel the operation.

18. **Full Level / Half Level:** Press this button to activate/deactivate Full Level. When activated, the pads always play back at a maximum velocity (127), no matter how hard or soft you hit them.

Hold down **Shift** and press this button to activate/deactivate Half Level. When activated, the pads always play back at half-velocity (63).

19. **16 Level:** Press this button to activate/deactivate 16 Level. When activated, the last pad that was hit will be temporarily copied to all 16 pads. The pads will now output the same note number as the initial pad, but a selectable parameter will be fixed at the values shown in the diagram on the right, regardless of how hard you hit them. In the software, in the window that appears, click the **Type** menu to select the parameter: *Velocity, Tune, Filter, Layer, Attack, or Decay*.

You can change the pad by clicking the **Pad** drop-down menu in the window that appears. Alternatively, you can press and hold the **16 Level** button, press the desired pad, and then release both.

20. **Note Repeat / Latch:** Hold this button down and press a pad to retrigger that pad's sample at a rate based on the current Tempo and Time Correct settings (the available Time Correct settings will appear in the display, which you can select with the **F-Buttons**). Hold down **Shift** and press this button to latch the Note Repeat feature. When latched, the button does not need to be held down for Note Repeat to be activated. Press **Note Repeat** once more to unlatch it.

Mode and View Controls

21. **Shift:** Hold this button down to access some buttons' secondary functions (indicated by orange writing). You can also double-press it to "latch" it for a few seconds. To unlatch it, press it once more or wait a few seconds for it to unlatch automatically.
22. **Main / Track:** Press this button to enter Main Mode in the display and software. Hold down **Shift** and press this button to enter Track View Mode in the display and software.

23. **Browser / Save:** Press this button to view the File Browser in the display. Hold down **Shift** and press this button to save the current Project (including its samples, Programs, Sequences, and Songs).
24. **Prog Edit / Q-Link:** Press this button to enter Program Edit Mode in the display and software. Hold down **Shift** and press this button to assign a parameter to a **Q-Link Knob**, use the **Cursor Buttons** to select the desired **Q-Link Knob**, then use the **Data Dial** or **-/+** buttons to select the desired parameter.
25. **Prog Mix / Track Mix:** Press this button to enter Program Mixer Mode in the display and software. Hold down **Shift** and press this button to enter Track Mixer Mode in the display and software.
26. **Seq Edit / Effects:** Press this button to enter Sequence Edit Mode. Hold down **Shift** and press this button to enter the Effects page in the display, where you can select and route effects as well as edit effects' parameters.
27. **Sample Edit / Sample Rec:** Press this button to enter Sample Edit Mode in the display and software. Hold down **Shift** and press this button to enter Sample Record Mode in the display and software.
28. **Song / Other:** Press this button to enter Song Mode in the display and software. Hold down **Shift** and press this button to enter MIDI Control Mode, which lets you edit various MIDI parameters for the pads, Q-Link Knobs, and certain buttons on your hardware while in this mode.
29. **Step Seq:** Press this button to enter Step Sequence Mode in the display and software.
30. **Next Seq:** Press this button to enter Next Sequence Mode in the display and software.
31. **Track Mute / Pad Mute:** Press this button to enter Track Mute Mode in the display and software. Hold **Shift** and press this button to enter Pad Mute Mode in the display and software.
32. **Window / Full Screen:** When this button is lit, it means the selected field in the display contains additional functions; press this button to access them. Use the **F-Buttons**, **Cursor Buttons**, and **Data Dial** or **-/+** buttons to execute (or cancel) these additional functions.

Hold **Shift** and press this button to switch between Full Screen and Half Screen Modes in the software. In Full Screen Mode, the workspace occupies the whole window. In Half Screen Mode, the parameter controls (Q-Link Knobs, pads, Sequence and Track information, Project Information, etc.) are shown underneath the workspace.
33. **Project / Folder 1:** Press this button to view only Project files in the File Browser. Hold down **Shift** and press this button to select the File Browser's Folder 1 shortcut.
34. **Sequence / Folder 2:** Press this button to view only Sequence files in the File Browser. Hold down **Shift** and press this button to select the File Browser's Folder 2 shortcut.

- 35. **Program / Folder 3:** Press this button to view only Program files in the File Browser. Hold down **Shift** and press this button to select the File Browser's Folder 3 shortcut.
- 36. **Sample / Folder 4:** Press this button to view only Sample files in the File Browser. Hold down **Shift** and press this button to select the File Browser's Folder 4 shortcut.
- 37. **No Filter / Folder 5:** Press this button to view all files in the File Browser. Hold down **Shift** and press this button to select the File Browser's Folder 5 shortcut.

Transport and Recording Controls

- 38. **Play:** Press this button to play the Sequence from the audio pointer's current position.
- 39. **Play Start:** Press this button to play the Sequence from its start point.
- 40. **Stop:** Press this button to stop playback.
- 41. **Rec:** Press this button to record-arm the Sequence. Press **Play** or **Play Start** to start recording. Recording in this way (rather than using **Overdub**) erases the events of the current Sequence. After the Sequence plays through once while recording, Overdub will be enabled.
- 42. **Overdub:** Press this button to enable Overdub, which allows you to record note events in a Sequence without overwriting any previously recorded note events. You can enable Overdub either before or during recording.
- 43. **< / > (| < / > |):** Use these buttons to move the audio pointer left/right, one step at a time. Hold **Locate** and press one of these buttons to move the audio pointer to the previous/next event in the Sequence Grid.
- 44. **<< / >> (Start / End):** Use these buttons to move the audio pointer left/right, one bar at a time. Hold **Locate** and press one of these buttons to move the audio pointer to the start or end of the Sequence Grid.
- 45. **Go To:** Hold this button down to activate the secondary functions of the **< / >** and **<< / >>** buttons (i.e., **| < / > |** and **Start / End**, respectively).
- 46. **Erase:** As a Sequence is playing, hold this button down and press a pad to delete the note event for that pad at the current playback position. This is a quick way to delete note events from your Sequence without having to stop playback.
- 47. **Tap Tempo:** Press this button in time with the desired tempo to enter a new tempo (in BPM) in the software.

Quick Start / Tutorial

This chapter should help you to familiarize yourself with some basic MPC features. To get the most out of this tutorial, we recommend reproducing each of the described steps.

The MPC hardware's display reflects what it is controlling in the software, but due to space and character limitations, the hardware display is slightly different (e.g., parameter names may be abbreviated, the layout may be different or spread across multiple tabs, etc.).

Hardware:

- You can navigate through the MPC hardware display by using the MPC hardware's **Cursor Buttons**. When a parameter is selected, you can change it by turning the hardware's **Data Dial** or using the **-/+** buttons.
- When the MPC hardware display shows a series of parameters that cannot be selected with the **Cursor Buttons**, that means it is showing you what the **Q-Link Knobs** are controlling. When you touch a Q-Link Knob, the parameter's name and setting will appear in the upper-right corner of the hardware display. Turn the knob to adjust it (If the Q-Link Knob does not control any parameter in the display, this area will show the Q-Link Knob number and no text).

MPC Studio users: MPC Studio's **Q-Link Knobs** control one column of parameters at a time. Whenever this manual instructs you to use the **Q-Link Knobs** to adjust parameters, you can use the **Scroll Knob** (above the **Q-Link Knobs**) to move through the different columns.

On the following pages we will create a short song to show you important aspects of using the MPC software in conjunction with the MPC hardware. Let's get started!

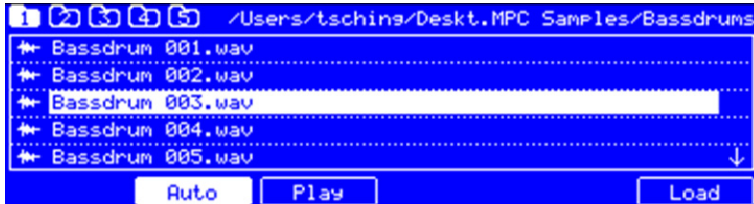
Starting Up

1. Power on your computer, and make sure the MPC hardware driver and software are both properly installed on your computer.
2. Connect your MPC hardware to your computer with a standard USB cable and power it on. After that, open the MPC software.

Now, you're ready to go!

Creating a Drum Kit

Let's start by making a simple drum kit.



*The **Browser** display of the MPC hardware*

Hardware:

1. Press the **Browser** button and use **Cursor Buttons** to navigate to where your drum sounds are located:
Use the **Up** or **Down Cursor Buttons** to move through a list
Use the **Right Cursor Button** to enter a selected folder,
Use the **Left Cursor Button** to go to the previous folder.
2. To preview a selected sound, press the **F3** button (**Play**). You can also activate the **Auto Preview** option with the **F2** button (**Auto**).
3. First, let's load a bass drum. Hit **Pad 1** to select it. The pad will be lit in green. Navigate to a bass drum sample you like and press **F6** (**Open**) to assign it to the selected pad. Now, you can press Pad 1 to play the bass drum sample.
4. To create a simple drum set, repeat the above steps for other pads. We recommend loading a snare drum, a closed hi-hat, and an open hi-hat. Feel free to add a crash cymbal, too.

Now that your drum kit is set up, you can record a drum Sequence!

Recording a Drum Sequence

Let's record a drum Sequence.

Hardware:

1. Press the **Rec** button to activate Record Mode.
2. To start the actual recording, press the **Play** button. The pre-count will count one measure before the software starts to record. We recommend recording only one sound (pad) at a time, especially if you are not familiar with playing on the pads.
3. Play a simple bass drum pattern. The note events you just recorded will automatically be placed in the grid (in this case, on 16th notes). The initial measure length is two bars. After the two bars, the recording will enter Overdub Mode automatically; the Sequence plays again from the beginning and keeps looping, allowing you to record further notes. Don't stop the recording!
4. Play the snare drum part, then a hi-hat part.
5. When you're done recording, press the **Stop** button.
6. To repeat the recording, keep in mind that the pads you play in your new recording will automatically replace existing notes played with the same pads. To prevent this, you can start again from Step 1 but press the **Overdub** button instead of the Rec button; Overdub lets you record additional note events over the existing Sequence.
7. The **Undo** button functions differently while in Record Mode. Normally, pressing **Undo** will undo just the last event. When there is an event to undo, the **Undo** button will be lit solid. While recording, the **Undo** button will flash. In this case, pressing **Undo** will erase *all* events from that recording (i.e., since **Play** or **Play Start** was pressed).
8. Want to add a crash cymbal? In this case, it is easier to create it directly in the software by clicking the desired position in the grid, in the same row as the crash sample.

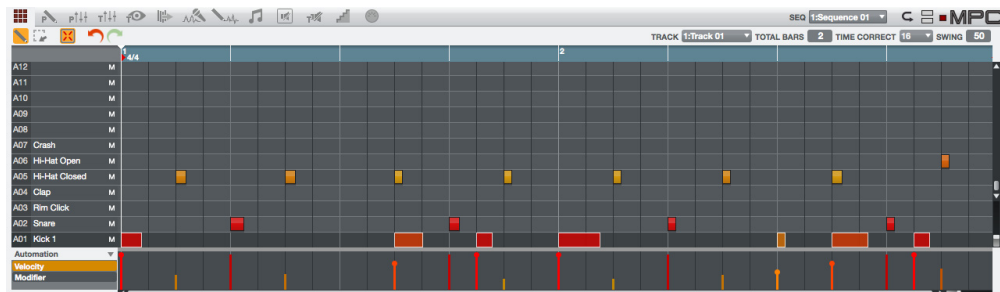
Now that you've recorded a Sequence using multiple pads, let's look at how you can edit and organize it.

Organizing Samples and Editing Note Events

We recommend doing some naming and editing before recording further. Let's use the software, which is easier for editing.

The collection of drum samples you loaded earlier (and their respective pad assignments) are arranged in a **Program**. Let's rename the existing Program as we'll want to create more Programs later on. Right-click **Program 001** in the **Project Information** panel, and select **Rename**. Name the Program (e.g., *Drums*), and click **OK**.

Right-click the name of a sample (e.g., *Bassdrum-01*), and select **Rename**. Enter a suitable name for the sample (e.g., *Bass Drum 1* or *Kick 1*). Repeat this for the other samples in the Program. This will help keep your Program organized as you add more samples to it.



In the grid, you can see your recorded note events. Click and drag a note to move it to a different position. By default, you can position notes only by quantization values, defined by the **Time Correct** value. You can change the value by clicking the **Time Correct** drop-down menu. We recommend working with **8** or **16** values. Hold down your keyboard's **Shift** key and use the arrow keys to nudge events without restricting ("snapping") them to the grid.

Hold down your keyboard's **Control** key (Windows) or **Command** key (Mac OS X) and click and drag a note to copy it. Double-click a note to delete it.

Velocity data can be easily edited in the velocity lane below the grid. Click a note event or place the mouse over a velocity bar in the lane. A small round handle will appear at the top of the velocity bar. Move the mouse vertically to change its value.

Let's make some basic edits to the sound of the Sequence.

Making Basic Sound Edits

Let's make sure the samples are properly tuned and have good levels.

Hardware:

1. Press the **Prog Mix** button to enter Program Mixer Mode.
2. Press the **F1** button (**Level**) to control the volume for each pad. You can use the hardware's **Q-Link Knobs** as well as the corresponding faders in the software. Adjust the levels of each pad to suit your taste.
3. Press **F2 (Pan)** to control the stereo panning for each pad. You can use the hardware's **Q-Link Knobs** as well as the corresponding **Pan** knob in the software. We recommend spreading the panning of the bright sounds (e.g., cymbals, snare drum) a little.
4. The snare drum needs a small amount of reverb to give it a more spatial sound. Press **F5 (Insert)** to view the Insert Effect tab. Use the **Cursor Buttons** to navigate to the snare sample's pad (here, **A02**). Using the **Data Dial**, select the desired effect, and press **F4 (Select)** to load it. Let's try *Reverb Medium*.
5. Could the bass drum use some tuning? Press the **Prog Edit** button and hit **Pad 1** to select the bass drum. Press **F2 (Samples)** and use the **Q14** and **Q15 Q-Link Knobs** to tune the sound. You can also use the corresponding **Semi** and **Fine** parameter in the **Layer** section of the software.



Next, we'll add a new sound.

Recording a Bass Track

Let's try recording a bass line. Unlike a drum kit, it's important to be able to play and record a bass sound chromatically, so this will be slightly different than setting up the drum kit.

Adding a bass line over the drum part means we need to add a new Track. A **Track** is simply a layer of a Sequence; you can have multiple Tracks in a single Sequence (e.g., a drum Track, a bass Track, a piano Track, etc.), and they all play simultaneously when you play the Sequence.

First, select a new Track. Go back to Main Mode and select **Track 2 (unused)** in the **Track** drop-down menu above the grid.

Hardware: Press the **Main** button and then press the **F4** button (**Track+**) to move to the next Track.

Let's create a new Program to assign to this empty Track:

1. In the **Track** Section in the lower half of the window, click the **+** button next to the **Program** drop-down menu.
2. In the **Project Information** Section on the right, right-click the new Program (**Program 001**) and enter a name (e.g., *Bass*).
3. Back in the **Track** Section, click the **Type** drop-down menu and select *Keygroup*. This is necessary because we want to play the bass sound chromatically with the pads.

Now, let's load a bass sound:

1. Click the File Browser's drop-down menu for an overview of your hard disk structure and select a location. Double-click any displayed folder in the File Browser to open it.
2. Locate and select a bass sample. Click the **Preview** button to preview any selected audio sample.
3. Double-click a sample to add it to the Project. (Keep in mind that the sample is not yet assigned to a pad.)



Let's continue to set up the Keygroup Program:

1. Click the **Program Edit** tab to enter Program Edit Mode.

Hardware: Press the **Prog Edit** button to enter Program Edit Mode.

2. In the **Layer** section, click the **Layer 1** drop-down menu and select the bass sample you just loaded (you'll see your drum samples in this list, as well). Because you're working with a Keygroup Program instead of a Drum Program, this sample is now playable across *all* pads.



Tip: On your MPC hardware, press the **Pad Bank D** button to switch to Pad Bank D and hit **Pad 13**. You should hear the bass sample played back with its original pitch. You can use the other pads to play your sample chromatically.

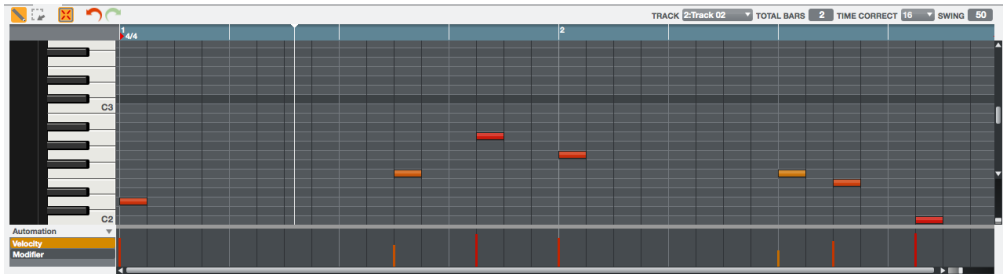
Let's add a second layer and set the Layers' velocity ranges so our bass sounds different when played at a higher velocity (as a real bass would):

1. Go back to the File Browser and select a different bass sample that sounds similar but a little bit brighter.
2. Double-click a sample to add it to the Project.
3. Back in the **Layer** section, click the **Layer 2** drop-down menu and select the new bass sample. Hit a pad—both samples will sound at once. Maybe this new sound is interesting as it is, but let's make some quick edits to get as close as we can to a real-life bass sound.
4. Set **Layer 1's Velocity** slider to cover the velocity range from 0 to 80, and set **Layer 2's Velocity** slider to cover the range from 81 to 127.



Now when you hit a pad, the lower velocities will trigger the Layer 1 sample only, while higher velocities will trigger the Layer 2 sample only.

Let's record that bass line now. Prepare your recording as described earlier, and record some bass notes. You can edit your recording just like we've done earlier.



Once you've recorded it, let's tweak it a bit in the **Filter** section of the **Program Edit** menu. For this, let's use the MPC hardware.

Hardware:

1. Press **Prog Edit** to enter Program Edit Mode, and press **F4 (Flt Env)** to enter the **Filter** page.
2. Turn **Q-Link Knob 13** to select a filter for the **Filter Type** field. We recommend working with the *Low 4* type, to start.
3. Turn the **Cutoff** and **Reso** (Resonance) knobs (**Q-Link Knobs Q14 and Q15**) until your bass sample sounds perfect to you.
4. Use the **Q-Link Knobs Q1 to Q4** to set the **Amp Atk** (Amplifier Envelope Attack) and **Amp Rel** (Amp Envelope Release). These control the overall level characteristics of the sound.
5. Do you want to add an effect (e.g., *Chorus*)? Press **F6 (Effects)** and select the desired effect type for your bassline. (Remember to turn the **Inserts** parameter in the upper-right corner of the display to *On*.)



So far, we've created a simple drum Sequence and a bass line to go with it. Repeat this process to create a second Sequence. Even with just these two Sequences, you have the foundation of a Song, which we'll explain next.

Creating a Song

This section explains how to make a Song out of your Sequences.

Before starting, make sure that you have recorded some Sequences (which we described earlier in this chapter)!

Click the **Song** tab to open Song Mode. Each of the Sequences you've created in this Project is assigned to a pad.

Click and drag a pad with the desired Sequence onto the **Sequence Playlist** to the left of the pads. Alternatively, if you prefer viewing a horizontal timeline, you can click and drag it onto the workspace above the pads.

STEP	SEQUENCE	RPTS	BPM	BARs
1	1: Sequence 01 ▾	1	120.0	2
2	2: Sequence 02 ▾	1	120.0	2
3	1: Sequence 01 ▾	2	120.0	2
4	2: Sequence 02 ▾	2	120.0	2
(end of song)				

As a Song plays, it moves through the each **Step**, which has a **Sequence** you assigned. Each Sequence may (or may not) be repeated, determined by the value in the Repeats (**Rpts**) column (a Rpt value of 1 means the Sequence will play through only once).

Each Step can be set to play its Sequence at an independent tempo, determined by the value in the **BPM** column. The **Bars** column indicates the total number of bars or measure that will elapse when playing that Step.

Click any drop-down menu in the **Sequence** column to select a new Sequence for that Step. Click and drag up or down on a **Rpts** value to change it.

Exporting the Song

Want to share your new Song with your friends? All you need to do is export it.

Click the **File** menu, navigate to **Export**, and select *As Audio Mixdown*.

In the **Audio Mixdown** window, you can select your mixdown settings.

- Set the **Start** field to 1, and set the **End** field to the last bar of your Song.
- As the Song will likely be uploaded to the Internet, select the *mp3* file format option.
- Choose a save location.

Click **Export** to start exporting the Song.

Other Features Explained

This chapter describes various advanced features. These sections explain how to perform these operations by using mostly the MPC hardware, but all of them are also possible in the software. For a fuller explanation of these features, please refer to their corresponding sections in the ***Operation (Software)*** chapter.

Step Sequencer

You've already learned how to record note events on a Track, but you can quickly enter note events in Step Sequence Mode by using the pads as "step buttons," simulating the experience of a traditional step-sequencer-style drum machine.

Hardware:

1. Press **Step Seq** to enter Step Sequence Mode.
2. Start a new Track by using the **Cursor Buttons** to select the **Trk** field and use the **Data Dial** or **-/+** buttons to select an unused Track. Let's use *Track 04*.
3. Use the **F2 (Bar-)** and the **F3 (Bar+)** buttons to select the bar whose steps you want to create or edit.
4. Use **F5 (Pad-)** and **F6 (Pad+)** to select the pad whose steps want to create or edit. The pad number and its sample name will appear in the upper-right corner of the display. Alternatively, you can use the **Cursor Buttons** to select the **Pad** field in the upper-right corner and use the **Data Dial** or **-/+** buttons to select a pad.
5. Press the **Play** button to start your Sequence.

Each pad represents a step in the bar. If the pad already has note events on the selected Track, the corresponding pads (steps) will be lit with colors corresponding to their velocities.

Hit an unlit pad to enter a note event at that step. The pad will light up with a color corresponding to its velocity.

Click a lit pad to delete the note event from that step. The pad will be unlit.

See the ***Step Sequence Mode*** chapter to learn more about this feature.

Drum Loops and Chop Mode

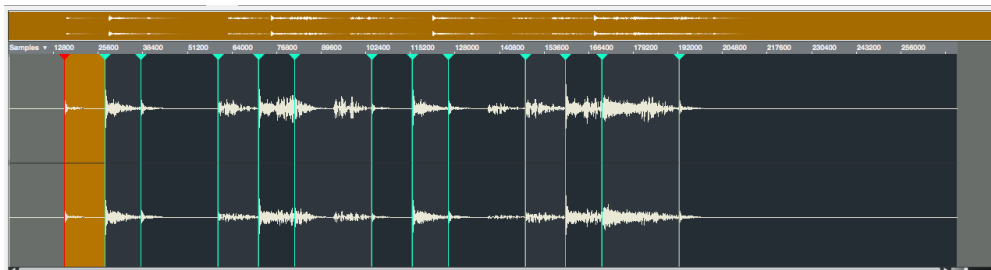
Modern music producers often use drum loops to add grit and nuance to programmed beats. This section explains how to use Sample Edit Mode to work with drum loops.

Use the File Browser to locate a drum loop on your hard disk (the loop does not have to match the tempo of anything in the Project). Double-click the desired drum loop to add it to the current Program.

Hardware:

1. Press the **Sample Edit** button to enter Sample Edit Mode.
2. Use the **Data Dial** to select the loaded drum loop. You can scroll through all loaded samples seen the top of your MPC hardware display.
3. Press **F1 (Chop)** to enter the Chop Mode where the drum loop will be cut into slices.
4. Use the **Cursor Buttons** to select the **Threshold** parameter, and use the **Data Dial** or **-/+** buttons select a value. The higher the value, the more slices will be created. Be sure to select a value so that every transient peak of the drum loop has a corresponding a slice marker.

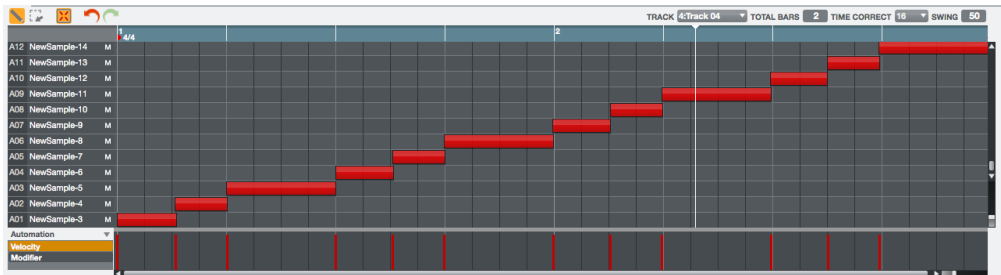
Tip: Press **F4 (Audition)** to play the created slices with the pads. Each slice will be automatically assigned to a pad: Pad A01 plays Slice 1, Pad A02 plays Slice 2, etc.



Hardware:

Now, let's create a new Program containing all of these slices as individual samples. It will also automatically create corresponding note events to play back these slices sequentially.

1. Press **F5 (Convert)** to enter the **Convert Slices** page.
2. Use the **Cursor Buttons** to navigate to the following parameters and use the **Data Dial** or **-/+** buttons select the value indicated as follows: **Convert** to *Sliced Samples*, **Crop Samples** to *On*, **Create New Program** to *On*, **Create Events** to *On*, and **Number Of Bars** to the bar length of your recorded Track (if you're working with the same one from the earlier tutorial, set it to 2).
3. Press **F6 (Do It)** to proceed. Each slice will be assigned to a pad, and each pad will have a recorded note event in the Track. When you play that Track, it will play each pad (each slice) in the original order.
4. Press **Play** and listen to how the drum loop matches your Song tempo now.

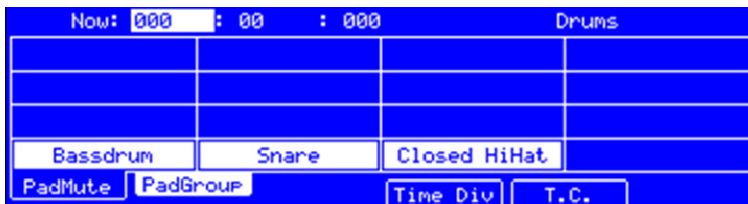


You can also edit the note events of the drum loop slices—enter Main Mode to do this. A new Track with the note events playing their corresponding slices has been automatically created. Click the **T Correct** drop-down menu to use Time Correct to quantize the note events so they fall on exact, even time intervals. You can also rearrange the note events, thus creating a new playback order for the slices. You can also edit each slice or sample in Program Edit Mode. You can add effects for slices or use the filter function to change the frequency range of a selected slice. There are almost no limits to what you can do.

See the **Chop Mode** part of the **Sample Edit Mode** chapter to learn more about this feature.

Pad Muting and Track Muting

Pad Mute Mode and Track Mute Mode let you silence different pads and Tracks to see what the Sequence sounds like without those samples or parts.



*The **Pad Mute** display of the MPC hardware*

Hardware:

1. Select your basic drum Track.
2. Press and hold the **Shift** button and press the **Track Mute / Pad Mute** button to enter Pad Mute Mode.
3. Press **Play** to play the Sequence.
4. Mute a pad by pressing it once. The muted pad will be lit red. You can mute multiple pads at the same time.
5. To mute pads on another Track, press **Shift + Main / Track** and press **F3 (Track-)** or **F4 (Track+)** to switch between the recorded Tracks. Press **Shift + Track Mute / Pad Mute** again to perform the desired mutes.

You can also mute entire Tracks by using the similar Track Mute function.



*The **Track Mute** display of the MPC hardware*

Hardware:

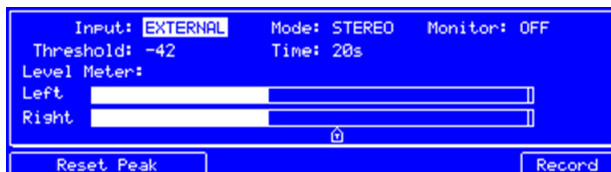
1. Press the **Track Mute** button to enter Track Mute Mode.
2. Press **Play** to play the Sequence.
3. Mute a Track by hitting the corresponding pad once. The muted pad will be lit red. You can mute multiple pads at the same time.
4. To mute a Track only at precise note intervals ("quantizing" your mutes, essentially), you can set a musical timing value by pressing the **F4** button (**Time Div**). Use the **Data Dial** or **-/+** buttons to set a musical value (e.g., *1 bar*). Press **F4 (Close)** to close the page. Now, when you hit a pad in Track Mute Mode, the mute will occur precisely at the beginning of the following bar. This lets you test musical combinations of patterns—the stage preliminary to building a Song structure.

Sample Recording

This section describes recording new samples of your own, which you can use in your Projects.

Important: To record any audio, you need to connect an audio source to your MPC Renaissance or to your computer's audio interface.

MPC Studio users: This section describes recording using MPC Renaissance as your sound card. MPC Studio cannot be used in this way, but you can use a separate audio interface connected to your computer to record audio.



The **Sample Record** display of the MPC hardware

Hardware:

1. Press and hold the **Shift** button and press the **Sample Edit / Sample Rec** button to enter Sample Record Mode.
2. Connect a suitable microphone to a **Mic In** jack of your MPC Renaissance. Make sure to set the input switch to *Mic*.
3. Set the **Mic In / Phono In** switch on the top panel to *Mic In* and turn up the **Rec Gain** dial. In the software you should now see the input signal. Make sure that the signal gain does not exceed the maximum level (the top input level display segment should be hardly lit).
4. Use the **Cursor Buttons** to navigate to the **Threshold** parameter and use the **Data Dial** or **-/+** buttons to set it to a fairly low level (e.g., **-70 dB**).
5. Press **F6 (Record)** and sing/say/shout something into the microphone. Recording starts immediately when the input signal level reaches the threshold value.
6. Press **F6 (Stop)** again, to stop recording.

If you're happy with your recording, name the new sample in the software in the window that appears when you stop recording. You should also assign the sample to an unused pad. Simply hit the pad to assign the sample! After that, click **Keep**.

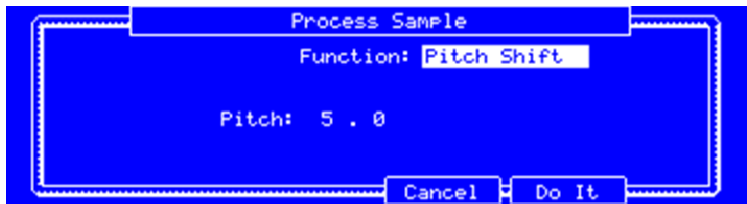
See the **Sample Record Mode** chapter to learn more about this feature.

Sample Editing

Select the sample in the **Project Information** section and right-click it. In the drop-down menu, select **Edit**. Sample Edit Mode will open.

Hardware:

1. Press **F2 (Trim)** to enter Trim Mode.
2. Use **Q-Link Knobs Q1, Q5, Q9, or Q13** to define a suitable start point for your sample.
3. Use **Q-Link Knobs Q2, Q6, Q10, or Q14**, to define a suitable end point for your sample.
4. To hear your edits, press **Pad A15** to play the sample from the new start point to the new end point.



*The **Process Sample** display of the MPC hardware*

Let's apply some transformations to the sample.

Hardware:

1. Press **F6 (Edit)** to enter the Process Sample window.
2. With the **Data Dial** or **-/+** buttons you can select the desired option. Let's try *Pitch Shift* to change the overall pitch of your sample.
3. Use the **Cursor Buttons** to navigate to the **Pitch** parameter and set it to *5.0*. This will transpose the sample by 5 semitones without affecting the sample's length.
4. Press **F5 (Do It)** to finalize the edit process.

See the **Sample Edit Mode** chapter to learn more about this feature.

Automating Parameters with the Q-Link Knobs

Automating various parameters is a good way to add some motion and dynamism to your Sequences.

1. In the software, click the **Main Mode** tab to open Main Mode. Hit a pad that has a sample assigned to it.
2. In the **Q-Link** section, click the **Prg** button. Turn **Q-Link Knob Q1** to activate it for assignment. Click the **Pad** field and select the pad you hit earlier, and select the following settings:
 - In the **Param** field, select *Filter Cutoff* as parameter.
 - In the **Change** field, select *Real Time* as the parameter.
3. Do the same steps for **Q-Link Knob 2**: assign it to the same pad, and select *Real Time* as the **Change** parameter, but select *Filter Reso* (resonance) for **Param**.
4. Record the automation using your MPC hardware:

Hardware:

1. Press the **Overdub** button to arm your automation recording. Press **Play** to start it.
2. Use **Q-Link Knobs Q1** and **Q2** to record filter movement as desired. After that, press **Stop** to finish the automation recording.

Want to see what you've recorded? In the software, to the left of the velocity lane under the grid, click the **Automation** menu, select **Real Time**, and select *RT Filter cutoff* and *RT Filter resonance*. The parameters will appear below it. Click either one to show its automation data. Click an automation anchor point to edit the automation.

See the **Recording and Editing Automation** part of the **General Features** chapter to learn more about this feature.

Using MPC as a Plugin

If you're working with other audio software, you can use the MPC software as an instrument plugin (VST, AU, or RTAS format) within your host software. The MPC plugin offers the same features and functionality as the standalone software version but with some notable differences, which are discussed in the **Operation (Plugin)** chapter.

Note: To learn how to load and use an instrument plugin in a host application, please refer to the corresponding chapter of your host application's manual.

Operation (Software)

This chapter explains the complete features and functions of the MPC software.

Important: When using the MPC software as a plugin, its features and functions are very similar to how it is described in this chapter but with some notable differences, discussed in the **Operation (Plugin)** chapter.

Remember:

- In this manual, whenever the MPC hardware can be used to control a parameter or a function, this is explained separately in a light-red box labeled **Hardware**, **MPC Renaissance**, or **MPC Studio** (as below on this page). Note that these paragraphs are not the *only* parts of the manual that mention the MPC hardware!
- We strongly recommend using the MPC hardware to control the software as its intuitive and fast operation will greatly enhance your workflow.

Hardware:

- The MPC hardware display reflects what it is controlling in the software, but due to space and character limitations, the hardware display is slightly different (e.g., parameter names may be abbreviated, the layout may be different or spread across multiple tabs, etc.).
- You can navigate through the MPC hardware display by using the MPC hardware's **Cursor Buttons**. When a parameter is selected, you can change it by turning the hardware's **Data Dial** or using the +/- buttons.
- When the display shows a series of parameters that cannot be selected with the **Cursor Buttons**, this means that the display is showing you what the **Q-Link Knobs** are controlling. Touch a **Q-Link Knob**, and the parameter's name and setting will appear in the upper-right corner of the hardware display. Turn the knob to adjust it (If the **Q-Link Knob** does not control any parameter in the display, this area will show the **Q-Link Knob** number and no text).
- When accessing the secondary functions of buttons on your MPC hardware, you can do this one of two ways: (1) pressing and holding **Shift** and then pressing the desired button or (2) double-pressing the desired button. This manual describes these operations using only the first option, but both are acceptable.

General Features

Adjusting the Controls

Tip: If you use a computer mouse with scroll wheel, you can use it to affect some of these controls: place your mouse pointer over the control and use the scroll wheel to change it. If you hold down your keyboard's **Shift** key while doing this, you can increase the resolution.

The MPC software uses the following types of control elements:

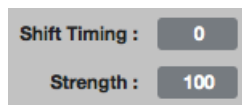
Knobs

To set a value, click the knob, hold the mouse button, and drag the knob up and down. Alternatively, you can edit values by using your mouse scroll wheel.



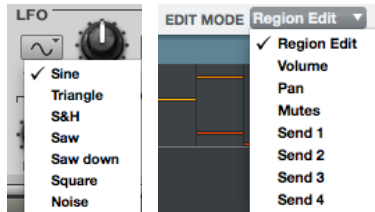
Parameter Values

To set a value, click and hold the mouse button on the field, and drag the mouse up and down.



Drop-Down Menus

Click the downward arrow (▼) to open a drop-down menu where you can select the desired setting or parameter.



Switches

Switches are represented by "LEDs." If a function is active, its LED will be lit red. To activate a function, click it. Any other LEDs in its set will be automatically deactivated.



Buttons

Click a button to activate or deactivate its function. Buttons are red when they are activated.



Envelope Displays

Click the respective "handle" of an envelope and drag into the desired direction to change an envelope parameter.



Pencil and Select Box Icons

Clicking this icon will switch between Draw Mode (the Pencil Tool) and Select Mode (the Select Box tool). When the grid is active (i.e., when you have clicked somewhere in it), you can press your computer keyboard's **1** key to enter Draw Mode or **2** key to enter Select Mode.



Draw Mode:

- Click once on an empty square in the grid to place a note event in that square.
- Double-click a note event to erase it.

Select Mode:

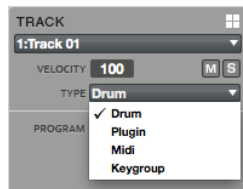
- Click and drag the box over note events on the grid to highlight them.
- Double-click an empty square in the grid to add a note event.
- Double-click a note event to erase it.

Program Types

About Programs

A Program is a file that contains (1) a list of all samples used and (2) the settings for each sample (i.e., pad assignments, loop points, pitch tuning, effects, etc.) Program Edit Mode lets you edit and assign samples. A single Project can hold a total of 128 Programs.

There are two kinds of Programs that use samples as their sound source: **Drum Programs** (used mostly for creating drum parts and quickly and easily assigning samples to pads) and **Keygroup Programs** (in which you can assign one or more samples to one or more keys and play them chromatically with a MIDI keyboard or the MPC hardware pads). Two other kinds of Programs use MIDI data only: **Plugin Programs** and **MIDI Programs**. This section covers how to create each Program type. To learn about editing your Programs to your preference, see the ***Program Edit Mode*** chapter.



Drum Program

To create a Drum Program in the software:

1. Click the **Main Mode** tab to enter Main Mode.
2. In the **Track** Section, click the **Type** drop-down menu and select *Drum*.
3. If the Project does not contain a Drum Program yet, a new Drum Program will automatically be added to the Project.

If the Project already contains a Drum Program, click the + button next to the **Program** drop-down menu.

4. Click the name in the **Program** drop-down menu, and enter an appropriate Program name.



Hardware: To create a Drum Program:

1. Press **Main** to enter Main Mode.
2. Use the **Cursor Buttons** to select the **Pgm** field, and then press the **Window** button.
3. In the **Edit Program** window that appears, press **F3 (New)** to create a new Program.
4. Use the **Data Dial** or **-/+** buttons to select *Drum* as the Program type, and then press **F5 (Do It)** to confirm or **F4 (Cancel)** to cancel.

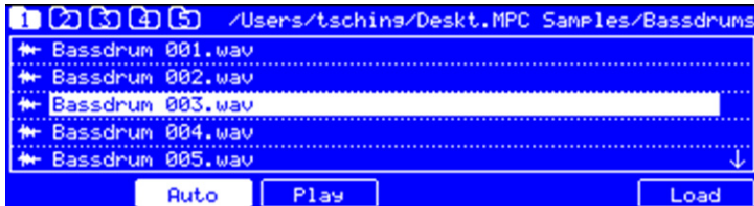
To load samples into a Drum Program, click and drag a sample onto the desired pad (in the pad display or its row in the grid) from one of the following locations:

- the **File Browser**
- the **Project Information** panel
- your computer's **Explorer** (Windows) or **Finder** (Mac OS X)

The sample will be assigned to the corresponding pad.

Tip: By following the same process described earlier, you can also load an entire folder of samples into a Program by dragging the folder onto a pad. Each sample will be assigned to a pad in alphabetical order, starting from the "destination" pad and ascending from there, one sample per pad.

Hardware: Press the **Browser** button. Choose a pad you want to assign a sample to. Locate the desired sample and press **F6 (Open)** to load it. The sample is now "placed" on that pad.



*The **Browser** display of the MPC hardware*

Hardware: Press the **Prog Edit** button, and then press **F1 (Master)**. With the **Q9**, **Q5**, and **Q1 Q-Link Knobs**, you can assign additional samples to the selected pad. You can assign up to four samples per pad (one for each Layer).

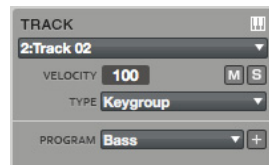
In the software, click the **Program Edit** tab. With the **Sample** drop-down menus of Layer 2 to Layer 4, you can assign additional samples to the selected pad. You can assign up to four samples per pad (one for each Layer).

Remember: A Drum Program holds 128 pads: 16 pads across eight banks.

Keygroup Program

To create a Keygroup Program in the software:

1. Click the **Main Mode** tab to enter Main Mode.
2. In the **Track** Section, click the **Type** drop-down menu and select *Keygroup*.
3. If the Project does not contain a Keygroup Program yet, a new Keygroup Program will automatically be added to the Project.



If the Project already contains a Keygroup Program, click the **+** button next to the **Program** drop-down menu.

4. Click the name in the **Program** drop-down menu, and enter an appropriate Program name.

Hardware: To create a Keygroup Program:

1. Press **Main** to enter Main Mode.
2. Use the **Cursor Buttons** to select the **Pgm** field, and then press the **Window** button.
3. In the **Edit Program** window that appears, press **F3 (New)** to create a new Program.
4. Use the **Data Dial** or **-/+** buttons to select *Keygroup* as the Program type, and then press **F5 (Do It)** to confirm or **F4 (Cancel)** to cancel.

To load samples into a Keygroup Program:

1. In the **File Browser**, double-click the desired sample. The sample is now loaded in the current Project.
2. Click the **Program Edit** tab.
3. Click Layer 1's **Sample** drop-down menu to select and assign a sample to the Keygroup Program. The loaded sample can now be played chromatically with the pads or a connected MIDI keyboard.

Hardware:

1. Press the **Browser** button.
2. Locate the desired sample and press **F6 (Open)** to load it. The sample is now loaded into the current Project.
3. Press **Prog Edit**.
4. Press the **F1 (Master)** button and use **Q-Link Knob Q13** to assign the sample to the Keygroup Program.

In the software, click the **Program Edit** tab. With the **Sample** drop-down menus for **Layer 2** to **Layer 4**, you can assign up to four samples (loaded into the **Project Information** beforehand) to create velocity layers or make other layer-dependent adjustments.

Hardware: Press the **Prog Edit** button. Press **F2 (Samples)**. With the **Q9**, **Q5**, and **Q1 Q-Link Knobs**, you can load additional samples to your existing one. These samples are placed in up to four Layers.

To create complex Keygroup Programs, you can add more Keygroups (up to 128). This is useful when working with multi-samples (e.g., when programming a real piano).

Remember: A Keygroup Program offers up to 128 Keygroups, and each Keygroup can hold up to four samples (Layers 1 to 4). This is a total of 512 samples.

MIDI Program

To create a MIDI Program:

1. Click the **Main Mode** tab to enter Main Mode.
2. In the **Track** Section, click the **Type** drop-down menu and select *Midi*.
3. If the Project does not contain a MIDI Program yet, a new MIDI Program will automatically be added to the Project.
If the Project already contains a MIDI Program, click the **+** button next to the **Program** drop-down menu.
4. Click the name in the **Program** drop-down menu, and enter an appropriate Program name.



Hardware: To create a MIDI Program:

1. Press **Main** to enter Main Mode.
2. Use the **Cursor Buttons** to select the **Pgm** field, and then press the **Window** button.
3. In the **Edit Program** window that appears, press **F3 (New)** to create a new Program.
4. Use the **Data Dial** or **-/+** buttons to select *Midi* as the Program type, and then press **F5 (Do It)** to confirm or **F4 (Cancel)** to cancel.

Unlike Drum Programs and Keygroup Programs, which use samples imported into the software, your MIDI Program will send MIDI messages to an external sound module (a connected drum machine, synth, etc.). You will need to set up the MIDI Program to do this properly. See the **Track Section** of the **Main Mode** chapter for more information on how to properly configure your MIDI Program.

To adjust the volume and panning of a Track's note events routed to the MIDI Program, click the **Track Mixer** tab to enter Track Mixer Mode, and adjust that Track's volume slider or pan knob, respectively.

By default, the volume and pan values will initially appear as **?**, indicating the Program is not sending any volume or pan changes.

Important: If you copy a Sequence, the volume and pan values will be copied with that Sequence. If you move to a new Sequence and put the same MIDI Program on a new Track, though, these values will appear as **?**, as described above.



Plugin Program

A Plugin Program lets you send your Tracks' MIDI data through a loaded plugin. This lets you route multiple Tracks through the same plugin instead of loading an instance of a plugin on every Track (which can be cumbersome and CPU-intensive).

To turn a Track's Program into a Plugin Program:

1. In the software, click the **Main Mode** tab.
2. In the **Track** section, select the Track you want to route to a plugin.
3. Click the **Type** drop-down menu, and select *Plugin*. The Plugin Program will automatically be added to the Project.
4. If your Project already contains the desired plugin, click the **Program** drop-down menu to select it.

If your Project does not yet contain the desired plugin, click the + icon next to the **Program** drop-down menu. A new Program name (*Plugin ###*) will appear in the Program drop-down menu (you can click it to enter a new name for it). Then, click the **Plugin** drop-down menu, select the desired plugin from the list, and click **Select** to select it or **Close** to cancel (in the window that appears, you can click checkboxes to re-order your list of plugins: **Sort by type** or **Sort by manufacturer**). Click the **e** button to open the user interface of the loaded plugin.

Remember: You have to specify the disk directory where your plugins are located. This can be done in the software's **Preferences**. See the **Preferences: Plugins Tab** section for more information.

5. Click the name in the **Program** drop-down menu, and enter an appropriate Program name.
6. Click the **MIDI Ch** drop-down menu to select a MIDI channel (from 1 to 16) the Plugin Program will use. Use this setting when you are working with a virtual instrument that supports multi-mode.
7. Click the **Preset** drop-down menu to select a preset for your plugin.
8. Repeat this process for every Track you want to route to a plugin.



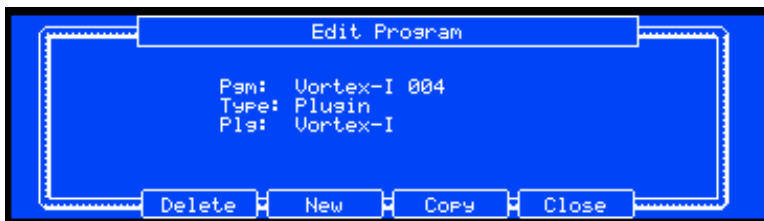
Hardware: To turn a Track's Program into a Plugin Program:

1. Press **Main** to enter Main Mode.
2. Use the **F3 (Track-)** and **F4 (Track+)** buttons to select the Track you want to route to a plugin.
3. Use the **Cursor Buttons** to select the **Type** field.
4. Use the **Data Dial** or **-/+** buttons to select *Plugin* as the Program type, and then press **F5 (Do It)** to confirm or **F4 (Cancel)** to cancel.
5. Next, select desired plugin:

If your Project already contains the desired plugin, use the **Data Dial** or **-/+** buttons to select it.

If you want to add a new plugin to the Project, press **Window**. In the **Edit Program** window that appears, press **F3 (New)** to create a new Program, and then use the **Data Dial** or **-/+** buttons to select *Plugin*, and press **F5 (Do It)**. Back in Main Mode, use the **Cursor Buttons** to select the **Plg** field, and then use the **Data Dial** or **-/+** buttons to select the desired plugin. Press **F4 (Select)** to select it or **F5 (Back)** to cancel.

6. Repeat Steps 2-5 for every Track you want to route to a Plugin.



*The **Edit Program** window in the MPC hardware display*

You can also adjust the volume levels and panning of your Tracks' Plugin Programs. Please see the **Routing** part of the **Track Mixer Mode** chapter to learn how to do this.

Next, adjust the volume levels and panning of your Tracks' Plugin Programs:

1. In the software, click the **Track Mixer** icon. Channel strips for the Tracks will be on the left and for the Plugin Programs on the immediate right. Above each channel strip's Pan knob, you will see where its audio is routed.
2. Adjust the volume and panning of a Track's note events routed to the Plugin Program by adjusting that Track's volume slider or pan knob, respectively. By default, the volume and pan values will initially appear as ?, indicating the Program is not sending any volume or pan changes (this allows certain plugins to load with their optimal default settings).
3. Use the corresponding Plugin Program volume slider and pan knob to control the volume level and panning routed to its output.

Important:

- If you copy a Sequence, the volume and pan values will be copied with that Sequence. If you move to a new Sequence and put the same Plugin Program on a new Track, though, these values will appear as ?, as described above.
- By default, some plugins do not support MIDI volume and pan. In this case, adjust volume levels and panning on the Track.



Tip: You can draw automation for each Track in the **Automation** lane under the grid in Main Mode, Program Edit Mode, Program Mixer Mode, Track View Mode, or Step Sequence Mode.

Hardware: To adjust the volume levels and panning of your Tracks' Plugin Programs:

1. Press **Shift + Prog Mix / Track Mix** to enter Track Mixer Mode.
2. Use the **Cursor Buttons** to highlight the Mixer field at the top of the display
3. Use the **Data Dial** or **-/+** buttons to switch between *Track* and *Plugin*. *Track* shows the information for the Track channel strips, while *Plugin* shows the information for the Plugin Program channel strips.
4. Press **F1 (Level)** or **F2 (Pan)** to select the desired tab, and then use the **Q-Link Knobs** to adjust the volume levels or pan settings of your Tracks or Plugin Programs.

Important: By default, some plugins do not support MIDI volume and pan. In this case, adjust volume levels and panning on the Track.

Mixer: Track			
13: 100	14: 100	15: 100	16: 100
9: 100	10: 100	11: 100	12: 100
5: 100	6: 100	7: 100	8: 100
1: 100	2: 100	3: 100	4: 100
Level	Pan	Mute	Send
			Insert
			Route

Track view in Track Mixer Mode in the MPC hardware display

Mixer: Plugin			
13: -	14: -	15: -	16: -
9: -	10: -	11: -	12: -
5: -	6: -	7: -	8: -
1: 100	2: -	3: -	4: -
Level	Pan	Mute	Send
			Insert
			Route

Plugin view in Track Mixer Mode in the MPC hardware display

File Browser

The File Browser lets you navigate through your computer's internal and external hard disks to load samples, Sequences, Songs, etc. Using filter buttons and user-definable folders, you can easily adapt the File Browser to your preferred workflow. You can also preview (audition) your samples before loading them.

In the software, the File Browser is in the left area of the window. It can be hidden or revealed by clicking the triangle button (◀ or ▶) in the lower-left corner of the window or by pressing **B** on your computer's keyboard.

Hardware: To enter the **File Browser**, press the **Browser** button.

To get the most efficient use of the File Browser, set the file path to your hard disk(s) first. There are five **Folder Buttons** labeled **1** to **5** at the top of the File Browser. Here, you can select up to five locations on your hard disk(s) to give you quick access to your files.

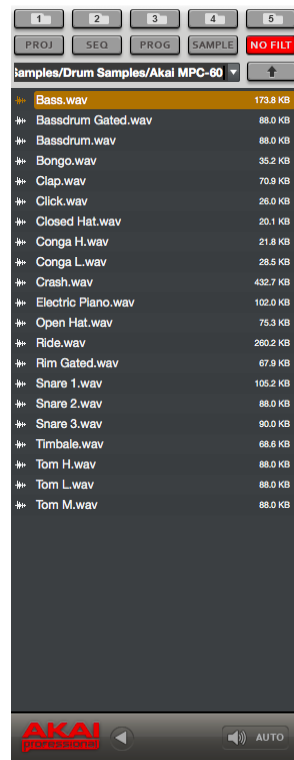
Note: The File Browser does not display irrelevant files (e.g., text documents, spreadsheets, pictures, etc.).

To set the file path:

1. Click the File Browser's drop-down menu. You'll see an overview of your hard disk structure, which looks quite similar to the Explorer (Windows) or the Finder (Mac OS X).
2. Navigate to the desired location. The folder's content will appear in the File Browser.
3. Press and hold your computer's **Shift** key and click one of the **Folder Buttons (1 – 5)** at the top of the File Browser.

Now, when you click that Folder Button again, the File Browser will display that folder's content immediately.

You can filter the displayed files with the filter buttons. The selected buttons will light red. Click **No Filter** to switch the filter function off. Click **Proj.** to show only Project files. Click **Seq.** to show only Sequence files. Click **Prog.** to show only Program files. Click **Sample** to show only audio files.



To load a Project, double-click its corresponding **.xproj** file in the File Browser.

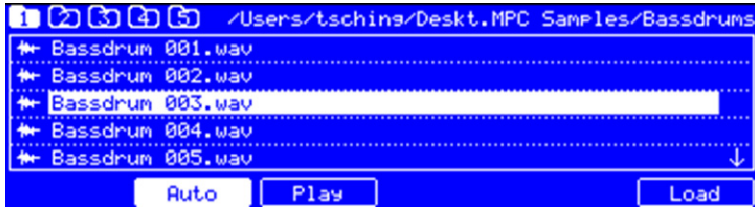
To load a single sample or multiple samples into a Project, click and drag the files onto the **Pad Bank** Section, the grid, or the **Project Information** section. You can select a single file or multiple files in the following ways:

- To select a single file in the File Browser, click it.
- To select multiple adjacent files in the File Browser, click the first file, press and hold your keyboard's **Shift** key, and then click the last file. All files between (and including) those two files will be selected.
- To select multiple files in the File Browser that are not adjacent, click the first file, press and hold your keyboard's **Control** key (Windows) or **Command** key (Mac OS X), and then click any additional file(s) you want to select. Release the Control key or Command key when you have finished selecting the files.

Tip: You can also click and drag files from your computer's **Explorer** (Windows) or **Finder** (Mac OS X) instead of from the File Browser.

Hardware:

- Use the following buttons for the File Browser filter functions: **No Filter** to deactivate the filter (same as the **No Filt** button in the software), **Project** for Project filter, **Sequence** for Sequence filter, **Program** for Program filter and **Sample** for sample filter.
- Use the **Shift** button and the five **Folder** buttons to select the desired location on your hard disk.
- Once a location is selected, you can select any file with the **Data Dial**, the **-/+** buttons or the **Cursor Buttons**.
- Use the left and right **Cursor Buttons** to enter or exit a folder.
- Press the **F6** button (**Load**) to load a sample on the selected pad.



The **Browser** display of the MPC hardware

With the **Parent Directory** arrow button (⬆, in the software, to the right of the file path) you can exit the current folder.

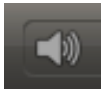


Hardware: Use the left and right **Cursor Buttons** to enter or exit a folder.

In the software, the **Preview** button is located below the File Browser.

Hardware: Press the **F3 (Play)** button to preview any selected audio sample.

Important: Only audio samples can be previewed. Also, make sure that your audio hardware is connected properly to listen to the audio file.



In the software, click the **Auto Preview** button to activate or deactivate the automatic preview function. When Auto Preview is active, each time an audio file is selected, it will play automatically. This is useful when scrolling through a list of samples (i.e., comparing different snare drum sounds without having to load or manually preview them).



Hardware: Press the **F2 (Auto)** button to activate or deactivate **Auto Preview**. When Auto Preview is active, each time an audio file is selected, it will play automatically.

Mode Tab Section

The Mode Tab Section contains tabs that let you switch between the software modes as well as further control for selecting Programs, Sequences, Songs, etc. depending on the selected mode tab on the left. This section is always visible.

The different modes are described in detail in the following sections of this chapter.



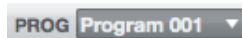
To select a mode within the software, click the corresponding tab.

Hardware: To select a mode, press the corresponding button.

	Main Mode		Next Sequence Mode		Track Mute Mode
	Program Edit Mode		Sample Record Mode		Step Sequence Mode
	Program Mixer Mode		Sample Edit Mode		MIDI Control Mode
	Track Mixer Mode		Song Mode		
	Track View Mode		Pad Mute Mode		

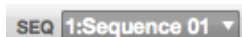
Depending on the selected mode, some Mode Tab Section menus and functions can change, described here:

Click the **Program** drop-down menu to select one of your Programs in the currently loaded Project. A Project can hold up to 128 Programs. The **Program** drop-down menu is available only when **Program Edit** or **Program Mixer** tab is selected.



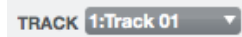
Hardware: Press the **Prog Edit** button and use the **Data Dial** or the **-/+** buttons to select the desired Program. This can also be done in the **Pgm** field on the **Main** window.

Click the **Seq (Sequence)** drop-down menu to select one of your Sequences in the currently loaded Project. A Project can hold up to 128 Sequences. The **Sequence** drop-down menu is available only when **Main**, **Program Mixer**, **Track Mixer**, **Track View**, or **Step Sequence** tab is selected.



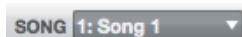
Hardware: Press the **Step Seq** button and use the **Cursor Buttons** to navigate to the **Seq** field. Use the **Data Dial** or the **-/+** buttons to select the desired Sequence.

Click the **Track** drop-down menu to select one of your Tracks in the currently loaded Sequence. A Sequence can hold up to 128 Tracks. The **Track** drop-down menu is only available when **Main**, **Program Mixer**, **Track Mixer**, **Track View**, or **Step Seq** tab is selected.



Hardware: Press the **Main** button and use the **Cursor Buttons** to navigate to the **Trk** field. Use the **Data Dial** or the **-/+** buttons to select the desired Track. You can also use the **F3 (Track-)** or **F4 (Track+)** buttons on the **Main Mode** page.

Click the **Song** drop-down menu to select one of your Songs in the currently loaded Project. A Project can hold up to 32 Songs. The **Song** drop-down menu is only available when the **Song** tab is selected. See the **Song Mode** chapter for more information about Songs.



Hardware: Press the **Song** button and use the **Cursor Buttons** to navigate to the **Song** field. Use the **Data Dial** or the **-/+** buttons to select the desired Song.

Click the **Screen Scroll** button to switch between Scroll Mode and Page Mode.

- Depending on the zoom setting, **Scroll Mode** will make the screen scroll along in the background, keeping the position marker centered.
- **Page Mode** will make the grid display "turn over" to follow the position marker.



Click the **View** button to switch between Split View and Full-Screen View.

- In **Split View**, the software window will show the grid in the upper half and the mode-specific controls in the lower half.
- In **Full-Screen View**, the software window will show the grid only. This view is useful if you are working with a lot of pads or Tracks and need to view all of them simultaneously.



Hardware: Press the **Shift + Window / Full Screen** buttons to switch between Split View and Full-Screen View.

Transport Section

The Transport Section contains various transport controls (for playback and recording) as well as bar and tempo displays, the master level, and a CPU meter. This section is always visible.



The CPU meter shows the computer CPU usage of the actual project. Keep in mind that an excessive use of synthesis functions such as filter and effects will increase the CPU usage.

Tip: If the CPU meter is very high, software response may slow down. Triple-clicking the **Stop** button (in this Transport Section or on your MPC hardware) will send a "MIDI panic" message. This will halt all messages the software is currently sending, and you can resume normal operation.



With the **Metronome** dial, you can set the volume of your metronome click.

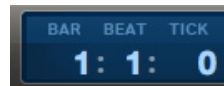
In the software, next to the **Metronome** dial, click **On** to activate or deactivate the metronome. It will light up red when active. Read more about the metronome in the **Click/Metro Menu** section of the **Software Menus** chapter.



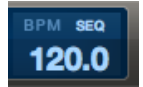
Hardware: Press the **Main** button and press **F2** to enter the **Click** menu. Use the **Cursor Buttons** to navigate to the **Metronome** field. Use the **Data Dial** or the **-/+** buttons to select the desired metronome setting. You can switch between *Off*, *Play*, *Record*, and *Record + Play* (for more information about these settings, see the **Click/Metro Menu** section of the **Software Menus** chapter).

The bar and tempo display shows the actual position in bars, beats, and ticks.

Hardware: To navigate to a particular position in a Sequence, you can use the **< / >** buttons to move one step at a time within a bar, or use the **<< / >>** buttons to move one bar at a time. You can also press the **Main** button and use the **Cursor Buttons** to move between the bars, beats, and ticks values in the **Now** field (at the top of the display) and use the **Data Dial** or the **-/+** buttons to change the value. You can also use the numeric buttons to enter a desired value and confirm it by pressing **Enter**.



You can change the Sequence's tempo by double-clicking the **BPM** value and entering a value with your computer's keyboard. You can also click and drag the BPM value up or down to increase or decrease it.



Hardware: Use the **Tap Tempo** button to tap in the beats per minute of your desired tempo. An amber LED will blink, indicating the current beats. You can also press the **Main** button and use the **Cursor Buttons** to move to the **Bpm** parameter. Select the desired value by using the **Data Dial** or the **-/+** buttons. You can also use the numeric buttons to enter a value and confirm by pressing **Enter**.

Note: The transport controls can be found on the MPC hardware as well as in the software, so the descriptions below apply to both.

Click the **Rec** button to put the software in Record Mode. The button's LED will light up red indicate the Record process is armed. To start recording, press **Play** or **Play Start**. When the Sequence starts to loop in Record Mode, it will switch to Overdub Mode.

Overdub allows you to add data to the existing data on the selected Track. It is additive and non-destructive. It operates just like the **Rec** button, except that the recording will be in Overdub Mode from the moment you press **Play** or **Play Start**.

Stop will stop playback or recording. Quickly pressing **Stop** three times will act as a "MIDI panic" and shut off all voices and stop all audio processing. **Stop** will also cancel loading any files that are being loaded—if you select a Project or Program by accident, press **Stop** to abort and clear the loaded files.

Play will start playback from the current time position.

Play Start will start playback from the beginning of the Song or Sequence or from the First Bar setting.

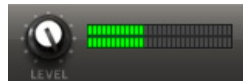


Hardware: The **Undo** button can be used differently during recording. Normally, pressing **Undo** will undo the last event only (the button will be lit solid when there is an action that can be undone). While recording, pressing **Undo** will erase *all* events since **Play** or **Play Start** was pressed (the **Undo** button will flash in this case).

Tip: When using the MPC software as a plugin in host software, you can use your MPC hardware to control your host software's transport. For instructions on how to set this up, click the **Edit** menu and select **Set Up MMC Control**, which will open a separate PDF. This is available for certain host software applications only.

Level controls the software's master output level.

MPC Renaissance users: The software's **Level** knob controls the volume level of the audio *before* the MPC Renaissance's **Main Volume** dial. The audio will then be sent out of the **Stereo Outs** on the rear panel.



The **Vintage** display directly below the output level meter indicates the selected emulation mode.

MPC Renaissance: Press the **Vintage Mode** button to switch between the different audio quality emulations. This works only if the MPC Renaissance is set up as the audio output in the **Preferences**. You can select to emulate the particular sonic qualities of the *MPC3000*, the *MPC60*, *Other* and of course no emulation (no LED will be lit).

The Grid

The grid is where you record, program, and edit your Sequences and arrange your Songs. The grid is visible in Main Mode, Program Edit Mode, Program Mixer Mode, Pad Mute Mode, and Step Sequencer Mode. Furthermore, the grid has two different appearances, depending on the selected Program type; Drum Programs appear one way while Keygroup Programs, MIDI Programs, and Plugin Programs appear another way.

Hardware: Press the **Shift + Window / Full Screen** buttons to enlarge the grid. This is ideal for working on Sequences in detail.

Grid for Drum Programs

When a Drum Program is selected, the grid looks like this:



The left column shows you all available pads (A01 to H16) in a vertical view with their corresponding data. Use the vertical window scroll bar right of the grid windows to move up and down. Under the scroll bar is a slider that can adjust the "vertical zoom." Below the grid is a similar scroll bar and slider for horizontal scrolling and zooming.

Hardware: To zoom vertically, press and hold the **Shift** button and use the up and down **Cursor Buttons**. To zoom horizontally, press and hold the **Shift** button and use the left and right **Cursor Buttons**.

Mute a pad by clicking its mute (**M**) button in the left column.

In the top-left corner of the grid are two buttons to switch between Draw Mode and Select Mode:

- By default, **Draw Mode** is active, indicated by the **Pencil Tool** icon. You can draw notes by clicking the corresponding position in the grid. You can also use it to draw automation curves in the velocity/automation lane underneath the grid.
- The **Select Mode** is indicated by the **Select Box** icon and lets you select one or more notes by drawing a frame around them. Selected notes will have a white border.



Learn more about these modes under **Pencil and Select Box Icons** in the **Adjusting the Controls** part of this chapter.

Duplicate note events by selecting them on the grid and then pressing **Control + D** (Windows) or **Command + D** (Mac OS X). The selected note events will be automatically copied and pasted, starting from the step just after the last selected note event.

When **Hitting Pads Select Events** is selected, you can hit a pad on your MPC hardware to select all events on that pad in the currently shown Sequence.



Click **Undo** (the red arrow) to undo your last action.



Click **Redo** (the green arrow) to redo the last action you undid.



In the upper-right corner of the grid in Main Mode, there are some menus and parameters you can adjust:



- Click the **Track** drop-down menu to select one of the Tracks to view in the grid.
- Click and drag the **Total Bars** field up or down to change the selected Track's length. The default setting is 2 bars. The maximum length is 999 bars.
- Click the **Time Correct** drop-down menu to select the note value to quantize to. Default is $1/16$ (16th notes).
- Click and drag the **Swing** field up or down to set the amount of swing (from 50% to 75%) so you can "shuffle" your beats—from subtle to extreme.

Hardware:

- Press the **Main** button and use the **Cursor Buttons** to navigate to the **Trk** field. Use the **Data Dial** or the **-/+** buttons to select the desired Track. You can also use the **F3 (Track-)** or **F4 (Track+)** buttons.
- To change the number of bars, navigate to the **Bars** parameter.
- To adjust the Time Correct and Swing, press the **F1** button (**T.C.**) and use the Cursor Buttons to navigate to the **Note** field or **Swing** field. Use the **Data Dial** or the **-/+** buttons to set the desired value. Press **F5 (Do It)** to confirm the operation or press **F4 (Close)** to cancel it without making any changes.

Across the top of the grid is a blue strip that indicates where you are in the Sequence:



- The number in the upper half is the bar number.
- The number in the lower half (of the first beat of the first bar) is the time signature. To change the time signature, double-click in the measure bar and enter the desired signature in the drop-down window.
- The red arrows (▶) indicate the start and the end of a Sequence. When a Sequence is played back using **Play Start**, the audio pointer will start playing from the first beat of the first bar. If the Loop function is activated (in the **Sequence** panel underneath the grid), the Sequence will loop between the beginning of the first bar and the end of the last bar. When creating a new Sequence, the first bar will default to Bar 1.

You can change the start point and end point of a Sequence by adjusting the **First Bar** and **Last Bar** parameters in the **Sequence** section below the grid. The red arrows in the measure bar will be placed accordingly. For more information on this, please see the **Sequence Section** part of the **Main Mode** chapter.

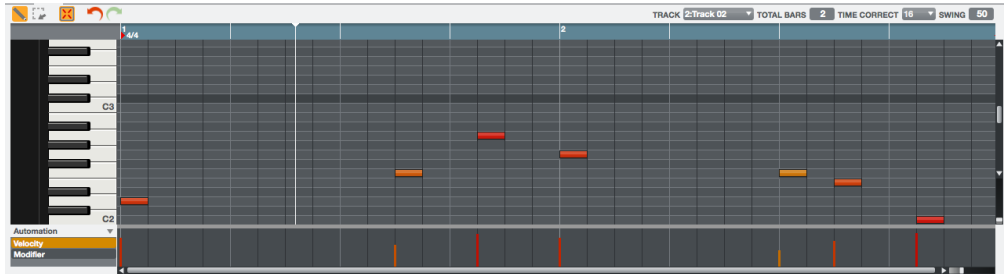
The section under the grid is the velocity/automation lane. Here, you can edit MIDI velocity

data of the note events in the grid and/or create and edit complex automation data for various parameters. The default parameter visible in the automation lane is **Velocity**. Learn more about velocity and automation in the **Editing Velocities** and **Recording/Entering and Editing Automation** sections parts of this chapter.



Grid for Keygroup Programs, MIDI Programs, and Plugin Programs

When a Keygroup Program, MIDI Program, or Plugin Program is selected, the grid looks like this:



The only difference from the Drum Program view is the vertical miniature keyboard ("piano roll") in the left grid window section. Click a key to select all note events for that note. You will also hear the note assigned to that key.

Everything else works exactly as in a Drum Program.

Entering and Editing Note Events

You can easily insert note events and data with your computer mouse.

Hardware: Press the **Rec** button to record-arm the software, and press the **Play** or **Play Start** button when you're ready to record. The metronome will pre-count one measure before the recording starts. Hit the pads to record note events in the Sequence. Press the **Stop** button when you're finished recording.

Tip: Whenever possible, we recommend recording note events with your MPC hardware's pads, which are velocity- and pressure-sensitive, providing a faster and more intuitive recording process.

In the software, you can create or delete note events with the Pencil Tool (in Draw Mode) or with the Select Box Tool (in Select Mode):

In Draw Mode:

- Click once on an empty square in the grid to place a note event in that square.
- Double-click a note event to erase it.



In Select Mode:

- Click and drag the box over note events on the grid to highlight them.
 - Double-click an empty square in the grid to add a note event.
 - Double-click a note event to erase it.
- Click a note event to hear its corresponding pad.
 - You can delete a note event if it is selected by pressing **Backspace** or **Delete** on your computer keyboard.
 - The length of note events depends on the **Time Correct** value (e.g., if set to 16, the note event length will be a 16th note).
 - Click and drag the start or end of a note event to shorten or extend a note event in steps corresponding to the **Time Correct** value.



- Click and drag a note event to move it to another position (when multiple note events are selected, you can move them all simultaneously). You can position note events only on quantization values defined by the set **Time Correct** value (indicated by vertical lines in the grid), but if you hold down your keyboard's **Shift** key while moving a note event, you can drag it to any position you like, regardless of the selected **Time Correct** value.
- Hold down **Control** (Windows) or **Command** (Mac OS X) and move a note to duplicate it. You can also duplicate note events by selecting them on the grid and then pressing **Control + D** (Windows) or **Command + D** (Mac OS X). The selected note events will be automatically copied and pasted, starting from the step just after the last selected note event.
- Use the copy & paste function to copy a note in the clipboard (**Control + C** [PC] or **Command + C** [Mac OS X]) and paste it automatically where the audio pointer is with **Control + V** [PC] or **Command + V** (Mac OS X).

Tip: Press your MPC hardware's **16 Level** button to activate/deactivate 16 Level. When activated, the last pad that was hit will be temporarily copied to all 16 pads. The pads will now output the same note number as the initial pad, but a selectable parameter will be fixed at values that increase as the pad numbers increase (e.g., Pad 1 is the minimum, Pad 16 is the maximum), regardless of how hard you hit them. In the software, in the window that appears, click the **Type** menu to select the parameter: *Velocity*, *Tune*, *Filter*, *Layer*, *Attack*, or *Decay*. You can change the pad by clicking the **Pad** drop-down menu in the window that appears. Alternatively, you can press and hold the **16 Level** button, press the desired pad, and then release both.

Editing Velocities

Velocity data can be easily edited in the velocity lane (Select Mode and Draw Mode):



- Click a note event in the grid or place the mouse over a velocity bar in the lane. A small round handle will appear at the top of the velocity bar. Click and drag the round handle up or down to change the velocity.
To increase the resolution, hold **Control** (Windows) or **Command** (Mac OS X) on your computer's keyboard while dragging.
- When you have selected multiple note events, you can edit their velocity values simultaneously. To select multiple note events, use the Select Box tool. To select all note events for a single pad (Drum Program) or key of the virtual keyboard (Keygroup Program), click the desired pad or key.

Recording/Entering and Editing Automation

In the software, follow these steps to record automation data:

Tip: Whenever possible, use your MPC hardware (especially the Q-Link Knobs) when recording automation data for faster results.

1. Click the **Main Mode** tab to enter Main Mode.
2. Click and move a **Q-Link Knob** so that it appears in the **QLink** display in the **Q-Link** Section.
3. In the **Q-Link** Section: If **FX** is selected, click the **Effect** drop-down menu to select an effect (which must be already loaded). If **Prg** is selected, click the **Pad** drop-down menu to select a Pad.
4. Click the **Param** drop-down menu and select the parameter you want to automate (e.g., *Filter Cutoff*).
5. If **Pad** is selected, click the **Change** drop-down menu and select the type of change (e.g., *Real Time*).
6. Click the **Overdub** button, and then click **Play** to start automation recording. It is very important to use the Overdub function; otherwise, this new recording will overwrite any data previously recorded to that Track.
7. Move the corresponding parameter **Q-Link Knob** during the recording process.
8. Click **Stop** you are finished recording.



In the software, follow these steps to edit recorded automation data:

1. To the left of the velocity lane, next to **Automation**, click the triangle (▼) and select the recorded Real Time parameter (e.g., *RT Filter resonance*). The automation data will be displayed in the lane.
2. Click and drag an anchor point to move a value vertically (amount) or horizontally (time position). You can move anchor points within the grid set by the **Time Correct** value. Hold the **Shift** key of your computer keyboard to move the anchor points independently from the selected quantization.
 - Double-click anywhere in the automation lane to add a new anchor point.
 - Double-click an anchor point to delete it.
 - Use the Pencil Tool (Draw Mode) to draw an automation curve.

- Use the Select Box Tool (Select Mode) to select several adjacent anchor points for simultaneous editing.
- You can add multiple automation parameters using this procedure.

Software Menus

Some of the software's menu items let you access features that cannot be accessed with the MPC hardware.

Important:

- The software menu organization differs between Windows and Mac OS X operating systems.
- When loaded as plugin, the **Menu** button is located to the left of the **Main Mode** tab.



File Menu

New Project creates an empty Project. Use this command when you want to start a Project from scratch.

New From Template loads a user-defined Project template. We recommend creating a Project with the basic settings that suit your needs and saving it as a Project template for easy access. See the **Preferences: Auto Load/Save Tab** section under **Edit Menu** to learn how to set this template.

Tip: You can "bypass" or ignore the template by opening the MPC software while holding down your computer's **Shift** key. This will open an empty Project instead of your selected Auto Load file.

Load Recent provides shortcuts to the last five files you have been recently working with. The list is chronological with the most recent file at the top.

Save Project saves the current Project. In the window that appears, name your Project and select a save location. The samples in the Project Information section will be automatically saved with the Project. The Project file (.xpi), and its information (samples, MIDI files, Program files, etc.) will be saved in a folder with the same name on the same folder level.

Save Project as is identical to the **Save Project** function but lets you save the current Project with a new name.

Save All Programs saves all Programs of your Project.

Save Current Program saves only the current Program.

Save Current Sequence saves only the current Sequence.

Export lets you export your Project or Sequence data in various formats: MPC formats, a standard MIDI file, a single Project Archive file, or as an audio mixdown file. Select the desired option from the sub-menu.

- **MPC formats:**

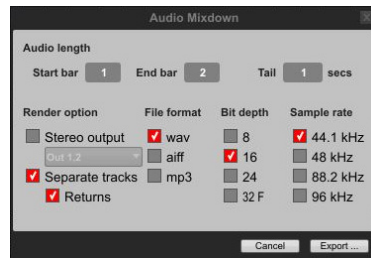
- *As MPC1000/MPC2500 Seq* exports the current Sequence so it can be read by an MPC1000 or MPC2500.
- *As MPC1000/MPC2500 Prg* exports the current Program so it can be read by an MPC1000 or MPC2500.
- *As MPC5000 Seq/Prg* exports the current Sequence and Program so they can be read by an MPC5000.

- **Midi Export** exports the Sequence as a standard MIDI file (.mid). In the window that appears, enter a file name and set the save location. This option is useful when you want to import your Sequences into separate sequencer software or exchange your Sequences with another artist.

- **As Project Archive** exports the entire Project as a Project Archive file (.xpa). In the window that appears, enter a file name and set the save location. This option is useful when you want to transfer a Project between different computers without dealing with its component files.

- **As Audio Mixdown** exports the Sequence as an audio file. In the window that appears, you can set the audio file's format:

- **Audio Length** lets you define the length of your audio file with the **Start bar** and **End bar**, allowing you to export a certain number of measures only. You can also set the length of a "bounce tail" (**Tail**) in seconds, which is useful when working with audio effects like reverb or delay, whose sound may exceed the defined export range.
- **Render option** lets you select between *Stereo output* and *Separate tracks*. *Stereo output* will render an audio output, which you can select by clicking the drop-down menu under the checkbox. *Separate tracks* will render at the Track Mixer. You can also export return buses by selecting the *Returns* checkbox. The rendered audio will not include Track Sends but will include the Track insert effects.



- **File format** lets you select *wav*, *aiff*, or *mp3* as the exported file format. For WAV and AIFF files, you can select a **Bit depth** of *8-bit*, *16-bit*, *24-bit*, or *32-bit, floating point*. For MP3 files, you can select a **Bitrate** of *128 kbps*, *160 kbps*, *192 kbps*, or *320 kbps*.
- **Sample rate** lets you select from *44.1 kHz*, *48 kHz*, *88.2 kHz*, or *96 kHz*. In most cases, we recommend selecting *44.1 kHz*.
- Click **Export** to open a window where you can enter a file name and set the save location.
- Click **Cancel** to close the window without exporting.

Exit closes the software. If you have not saved any changes made to a currently open project, it will prompt you to do so before quitting.

Mac OS X users: The **Exit** command is named **Quit MPC** and located in the **MPC** menu.

Edit Menu

Undo undoes the last action you performed. When there are no actions left to undo, the Undo command will be unavailable and appear grayed out.

Redo undoes the Undo command. You can continue redoing actions until there are no items left to redo, in which case, the Redo command will be unavailable and appear grayed out.

Important: If you perform a new action when the Redo command is available, you will no longer be able to redo. In other words, as soon as you perform an editing action other than Undo, Redo is no longer available.

Cut removes selected events from the grid and copies it to the clipboard. After cutting events, you can paste or insert them at another location in the same or another Sequence.

Copy copies selected events from the grid to the clipboard without removing them. After copying events, you can paste or insert them at another location in the same or another Sequence.

Paste lets you to paste the contents of the clipboard at the position marker's current location.

Clear deletes the contents of the clipboard.

Delete Unused Samples deletes any samples not assigned to a pad from the Project.

Important: The samples will be deleted *immediately* from the project. The software will not ask for confirmation or allow you to cancel, but you can undo this action (i.e., with the **Undo** command or hardware button), if needed.

Tip: You can delete unused samples by clicking the trash can icon in the upper-right corner of the Project Information section, as well.

History lets you view a list of previously executed commands in the **Command History** window. As you undo and redo commands, you can see your current "position" in the list of commands in the window.

To revert to a previous "state" in your Project, click and drag the point just after the last step. Any "undone" steps will be grayed out. You can do the same to redo all the grayed-out steps, as well.

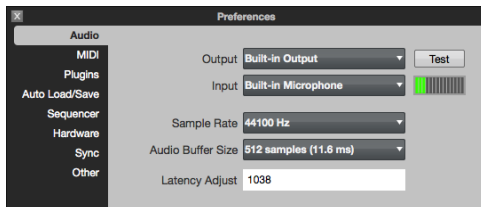
Command History				
#	ACTION	TIME	STATE	DETAIL
1	Load Sample	4:49:33pm	done	008A.WAV
2	Select Events (with Lasso)	4:49:35pm	done	
3	Clear Event Selection	4:49:36pm	done	
4	Select Events (with Lasso)	4:49:38pm	done	
5	Delete Selected Events	4:49:38pm	done	
6	Select Events (with Lasso)	4:49:52pm	done	
7	Delete Selected Events	4:49:53pm	done	
8	Select Events	4:49:54pm	done	select
9	Delete Selected Events	4:49:55pm	done	
10	Select Events	4:49:56pm	done	select
11	Select Events	4:49:56pm	done	deselect
12	Modify Events	4:49:56pm	done	
13	Select Events (with Lasso)	4:49:57pm	done	
14	Delete Selected Events	4:49:57pm	done	
15	Add Event	4:49:58pm	done	
16	Add Event	4:49:59pm	done	
17	Add Event	4:49:59pm	done	
18	Add Event	4:50:00pm	done	

Preferences opens the **Preferences** window, which contains many customizable elements of the software. Click the corresponding tab on the left to select it (e.g., **MIDI** or **Sequencer**). Click the **OK** button to close the **Preferences** window. Preferences will be automatically saved.

Mac OS X users: **Preferences** is located in the **MPC** menu.

- **Preferences: Audio Tab**

- **Output and Input:** Click these drop-down menus to select an audio hardware driver that is installed in your computer system. If you want to use the MPC Renaissance's input and outputs to record to and play back from your computer, select **ASIO** as the **Audio Device Type** and **MPC Renaissance ASIO Driver** as the **Device**. Otherwise, you can select an ASIO hardware driver of your audio interface.



Windows users: If you are using the internal soundcard of your computer, we recommend downloading the latest ASIO4ALL driver at asio4all.com.

- **Test:** Click this button to play a test tone. This is for checking your audio output. Careful! You should lower the volume on your audio system beforehand.
- **Sample Rate:** Click this drop-down menu to select the desired sample rate for your Project. This should depend on your audio interface's available sample rates (i.e., select **96000 Hz** only if your interface allows a 96 kHz sample rate).
- **Audio Buffer Size:** Click this drop-down menu to set the latency of your audio system. Lower values result in a more immediate playing response but also more CPU consumption. If you are working with larger Projects, audible clicks and pops may occur with lower latency settings. Higher values are much more CPU-friendly but produce a higher latency, resulting in a delay between hitting a pad and hearing the corresponding sound. The ideal audio buffer size also depends on your computer's CPU performance. Experiment with this to find the best setting for your system.
- **Latency Adjust:** Click and drag this field up or down to determine an offset (in milliseconds) if there is a delay in your audio system even after experimenting with the **Audio Buffer Size** setting.

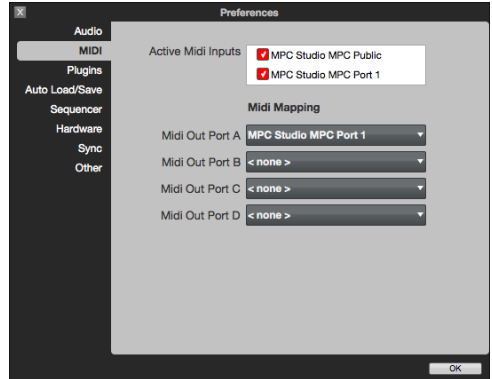
• Preferences: MIDI Tab

- **Active Midi Inputs:** These checkboxes represent the active installed MIDI inputs on your computer system.

Hardware: When the MPC hardware is connected and powered on, the available ports as well as the MPC public port are displayed.

- **Midi Mapping:** Click each drop-down menu to define the **Midi Out Port A** to **D**. Here, you can select the MIDI output your Sequencer data is routed to.

Note: When using the MPC software as a plugin, the only option you can select for your **Midi Out Port** is your host software (DAW).

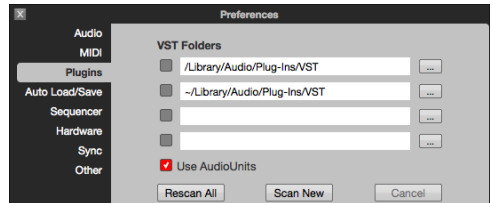


• Preferences: Plugins Tab

Here, you can select up to four locations on your hard disk where the software will look for installed VST or AU plugins. These plugins can be used as insert or send effects within your MPC software.

Click the ... button to the right of the field to select a desired location. After selecting a new location, we recommend using the **Scan New** function. When you make settings for the first time, you should click **Rescan All** to perform a complete scan of all selected plugin locations.

Mac OS X users: We recommend checking the **Use AudioUnits** option, enabling you to use also the AudioUnit plugin format.

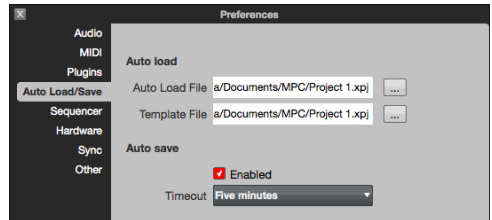


• Preferences: Auto Load/Save Tab

- **Auto Load File:** Click the ... button to select a Project (.xpi) or Program (.xpm) on your hard disk to load automatically anytime the software opens.

Tip: You can "bypass" or ignore the template by opening the MPC software while holding down your computer's **Shift** key. This will open an empty Project instead of your selected Auto Load file.

- **Template File:** Click the ... button to select a Sequence template to load automatically anytime you create a new Sequence.
- **Auto Save:** Click the **Enabled** box to turn Auto-Save on or off. Auto-Save sets the software to save your Project at regular intervals. Click the **Timeout** drop-down menu to select the interval.



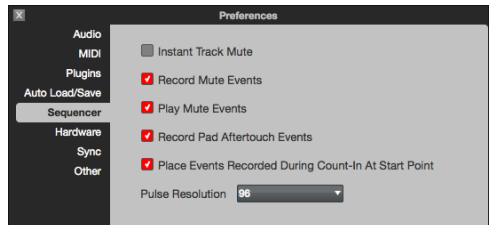
• Preferences: Sequencer Tab

Here, you can activate or deactivate options related to the software's sequencer.

- **Instant Track Mute:** If this option is disabled, Note On messages will be ignored. This is how legacy MPCs' track-muting worked. This allows samples and notes that are playing to finish playing their entire length. This is useful if you are using loops and want to a loop to play to the end of a bar but *not* play the next time the Sequence loops.

If this option is enabled, MIDI track volume is sent. This is useful when you want to have the Track muted immediately. The loop will continue to play but at zero volume, allowing the loop to continue playing when the Track is unmuted.

- **Record Track Mute Events:** If this option is enabled, Track Mute events are recorded only when you are in Track Mute Mode. Timing Correct settings will affect the recorded position of Track Mute events.
- **Play Track Mute Events:** If this option is enabled, Track Mute events are played back only when you are in Track Mute Mode.

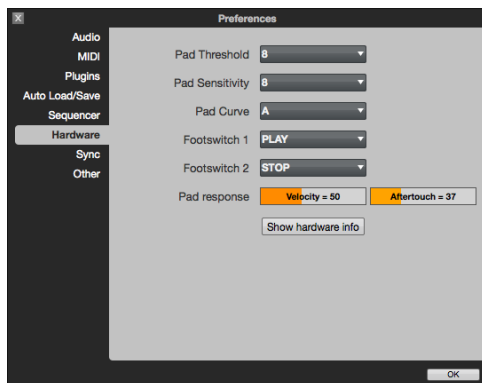


- **Record Pad Aftertouch Events:** If this option is enabled, pad aftertouch data (from MPC hardware's pressure-sensitive pads) can be recorded.
- **Place Events recorded during Count-In at start-point:** If this option is enabled, hitting a pad during the recording's pre-count will record that note event at the start of the recording. (This is the MPC3000 worked.)
- **Pulse Resolution:** Click this drop-down menu to select the display resolution (in PPQN—pulses per quarter note) of pulse values in certain areas of the software. Please note that this setting affects the display resolution, not the software's timing

• Preferences: Hardware Tab

Here, you can set additional parameters affecting the behavior of your MPC hardware.

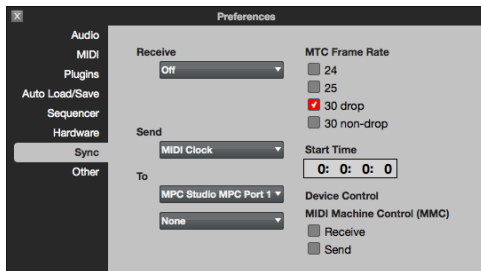
- **Pad Threshold:** Click this drop-down menu to select a threshold that must be exceeded to trigger the pad.
- **Pad Sensitivity:** Click this drop-down menu to set how sensitively your MPC hardware's pads respond to your touch.
- **Pad Curve:** Click this drop-down menu to set how your playing is translated into velocity values, starting from value *A* (a soft touch is enough to create a big velocity value) up to *D* (you have to hit the pad really hard for a high velocity value).
- **Footswitch 1** and **Footswitch 2:** Click these drop-down menus to select the functionality of connected footswitches to your MPC hardware. You can select either transport commands (e.g., *Play* or *Stop*) or trigger commands for pads and the F(unction)-Buttons.
- **Pad Response:** View the **Velocity** and **Aftertouch** meters when pressing the pads to help gauge the force and pressure you are applying to them. These meters are useful when adjusting the **Pad Threshold** and **Pad Sensitivity** parameters (above).
- **Show Hardware Info:** Click this button to open a window with information about your connected MPC hardware (firmware version, driver version, etc.).



- **Preferences: Sync Tab**

Here, you can set various parameters related to the software's synchronization:

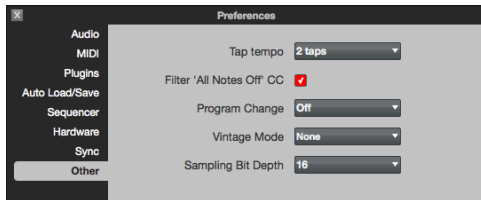
- **Receive:** Click this drop-down menu to select whether or not the software receives *MIDI Clock* or *MIDI Time Code* (MTC) from the host software (when MPC is used as a plugin) or from an external device (connected to the **MIDI In** port of the MPC hardware).
- **Send:** Click this drop-down menu to select whether or not the software sends *MIDI Clock* or *MIDI Time Code* (MTC) to the individual ports of the MPC hardware or any connected MIDI interface. Make sure to check the port(s) over which you want to send this information. You can select two MIDI devices connected to your computer to send MIDI Clock or MTC data to. Select your device in each **To** drop-down menu below it.
- **MTC Frame Rate:** Check one of these boxes to set the frame rate for MIDI Time Code (MTC) synchronization in FPS (frames per second). In most cases, you should select 25. The correct frame rate is important, especially when working on film scoring projects.
- **Device Control:** Check either or both of these boxes to send or receive MIDI Machine Control (MMC) to or from your MPC hardware's transport buttons. MMC sends only transport commands; it does not include track-arming or more advanced features.



• Preferences: Other Tab

Here, you can set various other MIDI and audio parameters.

Hardware: Press **Shift + Song** and then press **F1 (Other)** to open the **Other** tab. Use the **Cursor Buttons** to select the corresponding option, and use the **Data Dial** or **-/+** buttons to change it. Not all options in the software's **Other** tab are available through the MPC hardware display.



- **Tap Tempo:** Click this drop-down menu to set how many times you have to press your MPC hardware's **Tap Tempo** button until the new tempo is recognized.
- **Filter 'All Notes Off' CC:** Check this box to filter out All Notes Off data. If you have connected another device to your MPC hardware's **MIDI In**, checking this box will cause the software to ignore "All Notes Off" ("MIDI panic") messages. That is, if a MIDI device sending MIDI messages into the MPC hardware sends a MIDI panic message, the software will not stop all notes and will continue as before (recording, for instance).
- **Program Change:** Click this drop-down menu to select what an incoming MIDI Program Change message will change: a *Program*, *Sequence*, or *Track*.
- **Vintage Mode:** Click this drop-down menu to select an audio quality emulation for the software's audio output. The software can emulate the particular sonic qualities of, for example, the *MPC3000* or *MPC60*, or of course no emulation (*None*).
- **Sampling Bit Depth:** Click this drop-down menu to set the bit depth of the audio recorded from a sample.

Click/Metro Menu

This menu contains all settings regarding the Metronome.

Count-In enables or disables the metronome pre-count before recording.

- *Off* disables the metronome pre-count.
- *Record* enables the pre-count during recording only.
- *Record + Play* enables pre-count in both Record and Playback Modes.

Metronome offers the settings for the metronome.

- *Off* disables the metronome.
- *Play* enables the metronome sound during playback only.
- *Record* enables the metronome sound during recording only.
- *Record + Play* enables the metronome to happen in both Record and Playback Modes.

Rate lets you to select the metronome click's time division: 1/4, 1/4T, 1/8, 1/8T, 1/16, 1/16T, 1/32 or 1/32T ("T" stands for "triplet").

Sound lets you to select the sound that you want to hear for the metronome: *Sidestick1*, *Sidestick2*, *Clap*, *Metroclick*, *Shake*, *Tambourine*, or *MpcClick*.

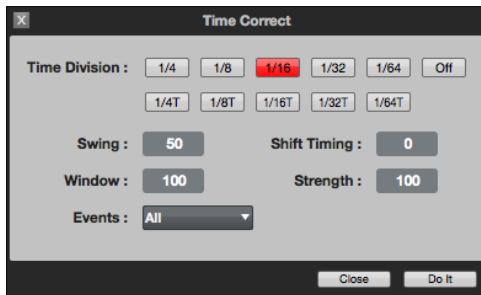
Time Correct Menu

Here, you can select the Quantization settings.

Apply quantizes the currently selected note events. If no note events are selected, nothing will be quantized. You can also press **Control + K** (Windows) or **Command + K** (Mac OS X) on your computer keyboard to apply quantization.

Settings: Click this to open the **Time Correct** window with the following functions:

- **Time Division:** Click a box to select the note value to quantize to. Default is 1/16. You can select from different quantizations, including triplet (T) values.
- **Swing:** Click and drag this field up or down to set the amount of swing from 50% to 75%. Swing lets you "shuffle" your beats—from subtle to extreme.
- **Shift Timing:** Click and drag this field up or down to shift all note events by clock ticks.
- **Window:** Click and drag this field up or down to set how many notes around a quantize value will be quantized. Any notes outside this range will not be quantized; notes inside will.



- **Strength:** Click and drag this field up or down to set how strictly notes will be quantized (i.e., shifted toward the quantize value). Lower values move notes a little bit towards the closest quantize value, resulting in a less mechanical feel than a strict quantization (a higher value).
- **Events:** Click this drop-down menu select the target range for the time correction. You can apply the time correction to *All* note events or to just the *Selected* ones. When *Range* is selected, you can define the bars as well as the pads or keys that will be quantized. The selection is done on the MPC hardware.

Hardware: When *Range* is selected, you can define the pads or keys to be quantized by pressing their corresponding pads. Selected pads are shown in the **Time Correct** window. Use the **Cursor Buttons** to navigate to the **Events Range** parameter to select the range of bars for quantization.

Click **Do It** to apply the settings you made.

Click **Close** to cancel without making any changes.

Help Menu

About MPC shows information about the software version.

Check for Updates... checks online if a newer version of the software is available. You need an active Internet connection to use this function.

Set Up MMC Control opens a PDF with instructions on how to allow your MPC hardware's transport buttons to send MMC (MIDI Machine Control) messages from the MPC plugin to your host software. This allows you to use your MPC hardware to control your host software's transport. This is available for certain host software applications only.

MPC Help opens this PDF manual.

Mac OS X users: **About MPC** and **Check for updates...** are located in the **MPC** menu.

Main Mode



Main Mode gives you an overview of the most-used functions.

To enter Main Mode, click the **Main Mode** tab in the Mode Tab Section of the software window.

Hardware: Press the **Main / Track** button.

Important: The MPC hardware cannot display as many parameters at the same time as the software. Some of the MPC hardware functions are located on different pages than in the software.



Q-Link Section

Here, you can set the functionality of the Q-Link Knobs.

The Q-Link section can work in two modes: Program Mode (**Pgm**) and **FX** Mode.

- **Program Mode:** The 16 Q-Link Knobs control specific Program parameters of the selected Program.
- **FX Mode:** The 16 Q-Link Knobs can be assigned to the parameters of used effects.

By switching between these two modes, you are able to define two parameters for each knob. This offers maximum flexibility when controlling parameters in real time.

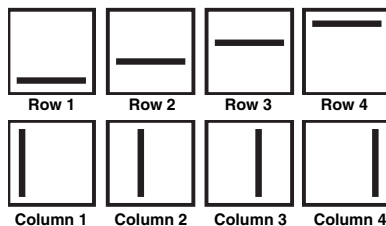


Hardware:

- Access the Q-Link Section by pressing **Shift + Prog Edit / Q-Link**.
- Touch the top of a **Q-Link Knob** to select it.
- Press **F1 (Prog Q)** to switch to Program Mode. Press **F2 (FX Q)** to switch to FX Mode.
- Press **F4 (Edit)** to change further parameters, described later in this section.
- Use **F5 (Params)** to see what parameter each of the 16 Q-Link Knobs controls. Pressing **F6 (Values)** displays the parameter value of each Q-Link Knob.

Important: The MPC Renaissance has 16 Q-Link Knobs, allowing direct access to all 16 parameters, whereas the MPC Studio is equipped with 4 Q-Link Knobs which need to be assigned to the corresponding Q-Link Knob column or row with the **Scroll Knob** above the Q-Link Knobs.

In modes where the display shows a "4 x 4" array of parameters, you will see an additional indicator on the top or left side of the array, indicating the currently controlled row/column:



- The Q-Link Knobs control **columns** of parameters in Main Mode, Program Edit Mode, Track View Mode, Sample Edit Mode, and Step Sequence Mode.
- The Q-Link Knobs control **rows** of parameters in Program Mixer Mode and Track Mixer Mode.

Program Mode

Click the **Prq** button to activate the Q-Link Knobs' Program Mode. To assign a parameter to a Q-Link Knob in the software:

1. Click a Q-Link Knob and move the mouse to select it for assigning. The **Qlink** field will show the number of the selected knob.

Hardware: Touch the top of a **Q-Link Knob** to select it.

2. Click the **Trig** drop-down menu and select *Min* or *Max*. When you hold down the **Q-Link Trigger** button on your MPC hardware and touch the top of one the Q-Link Knobs, the corresponding parameters will jump to either its minimum (*Min*) or maximum (*Max*) value.

Hardware: Use the **Cursor Buttons** to select the **Touch To** field, and then use the **Data Dial** or **-/+** buttons to select *Min* or *Max*.



3. Click the **Pad** drop-down menu and select the desired pad you want to control. We recommend using **Q1** for Pad A01, **Q2** for Pad A02 etc., so your controller mapping is easy to remember.
4. Click the **Param** (Parameter) drop-down menu and select the parameter you want to assign to the Q-Link Knob:
 - o *Sample Layer* allows you to switch between Sample Layers 1 to 4. To use this function, each layer must have an assigned sample with distinct (non-overlapping) velocities. See the **Edit Layers Section** of the **Program Edit Mode** section to learn how to set sample layer velocities.
 - o *Tuning* controls the sample's pitch.
 - o *Filter Cutoff* controls the cutoff frequency of the filter. (Select a pad's filter type in Program Edit Mode.)
 - o *Filter Resonance* controls the resonance value of the filter.
 - o *Filter Env Amount* controls the envelope amount of the filter.
 - o *Qlink Pan* controls the sample's panning position in the stereo field.
 - o *Level* controls the sample's volume level.
 - o *Env Attack* controls the attack time of the Amp Envelope.
 - o *Env Decay* controls the decay time of the Amp Envelope.
 - o *Env Release* controls the release time of the Amp Envelope
 - o *Send 1 to 4* controls the corresponding FX send levels for the selected pad.
5. Click the **Change** drop-down menu to select the condition for changing a parameter. In most cases, you should select *Continuous*, which changes the sound immediately when the Q-Link Knob is moved. If *Note On* is selected, the Q-Link Knob's position will affect the sound only when its corresponding pad is hit.

If *Midi* is selected in the **Instrument** Section, The Q-Link Knobs' Program Mode will look slightly different. To control a desired parameter of an external sound generator by MIDI, you can define a **MIDI CC** (MIDI Control Change). This can be any MIDI Control Change from 1 to 128 for every Q-Link Knob. Make sure that your external MIDI device is able and set to recognize MIDI control change data.



FX Mode

Click the **FX** button to activate the Q-Link Knobs' FX Mode. To assign a parameter to a Q-Link Knob in the software:



1. Click a Q-Link Knob and move the mouse to select it for assigning. The **Qlink** field will show the number of the selected knob.

Hardware: Touch the top of a **Q-Link Knob** to select it.

2. Click the **Trig** drop-down menu and select *Min* or *Max*. When you hold down the **Q-Link Trigger** button on your MPC hardware and touch the top of one the Q-Link Knobs, the corresponding parameters will jump to either its minimum (*Min*) or maximum (*Max*) value.

Hardware: Use the **Cursor Buttons** to select the **Touch To** field, and then use the **Data Dial** or **-/+** buttons to select *Min* or *Max*.

3. Click the **Effect** drop-down menu and select one of the effects, which have previously been loaded.

Note: You have to load an effect before its parameters can be assigned to the Q-Link Knobs. All effects loaded to the pads or to the Track, independent from their routing, can have their parameter assigned. See the **Effects** chapter for more information about loading effects.

4. Click the **Param** (Parameter) drop-down menu and select the parameter you want to assign to the Q-Link Knob. The available parameters depend on the selected effect.

Pad Bank Section

This section lets you select a pad to edit (16 pads across eight banks).

In the software, click the desired pad to select it. To select a different bank, use the **Bank** buttons above the pads to specify a bank from **A** to **H**.

Hardware: Hit a pad to select it. To select a different bank, use the **Pad Bank** buttons to specify a bank from **A** to **H**.

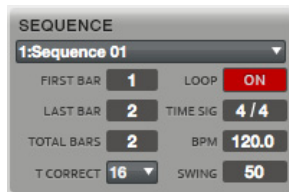


Sequence Section

This section gives you an overview of parameters relevant to the current Sequence.

In the software, click the **Sequence** drop-down menu and select a Sequence or click the ► icon in the lower-right corner of the drop-down menu and select an unused Sequence from the list that appears.

Hardware: Move the cursor to **Seq** and use the **Data Dial** or the **-/+** buttons to select the desired Sequence.



Click the **Loop** button to switch the Sequence's loop function *On* or *Off*.

The loop points are defined by the **First** and **Last Bar** values. With the **First Bar** and **Last Bar** you can set the corresponding bar position pointer (e.g., to create a cycle for a loop). Keep in mind that the **Last Bar** value depends on the total length of the Sequence.

Hardware: Use the **Cursor Buttons** to select the **Loop** field and use the **Data Dial** or the **-/+** buttons to turn the loop *On* or *Off*. With the **Loop** field still selected, press the **Window** button. Then, use the **Cursor Buttons** to select the field for **First Bar**, **Last Bar**, or **Number of Bars**, and then use the **Data Dial** or the **-/+** buttons to select the desired numbers.

Click the **Total Bars** field to set the total number of bars.

Hardware: Use the **Cursor Buttons** to select the **Bars** field, and then use the **Data Dial** or the **-/+** buttons to set the desired bar length of your Sequence. You can set up to 999 bars.

Click the **T Correct** (Time Correct) drop-down menu and select the note quantization value.

Hardware: Press the **F1** button (**T.C.**) to edit the **Time Correct** value.

Click the **Time Sig** field to change the time signature for your Sequence.

Click the **BPM** field to set the desired tempo in beats per minute.

Hardware: Use the **Cursor Buttons** to select the **Bpm** field, and use the **Data Dial** or the **-/+** buttons to set the desired tempo in BPM (beats per minute).

Click the **Swing** field to change the groove of your Sequence. Values range from 50% to 75% and let you "shuffle" your beats—from subtle to extreme.

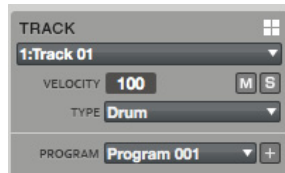
Hardware: Press **F1 (T.C)** to locate the **Swing** parameter. It can be changed by using the **Data Dial** or the **-/+** buttons to set the desired value.

Track Section

This section gives you an overview of various parameters regarding the selected Track.

In the software, click the **Track** drop-down menu and select the desired Track.

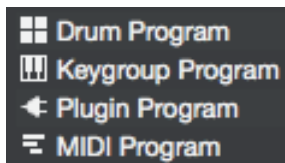
Hardware: Use the **Cursor Buttons** to select the **Trk** field, and use the **Data Dial** or the **-/+** buttons to select the desired Track. You can also press **F3 (Track-)** or **F4 (Track+)** to switch to the desired Track or type in the number with the number keys.



In the upper-right corner of the **Track** section, an icon will indicate whether the Track is using a Drum Program, Keygroup Program, MIDI Program, or Plugin Program.

Click the **Velocity** display to change the overall velocity of the selected Track. This determines how loudly or quietly a Track plays relative its recorded levels. When set to 50%, the Track will be played with half the velocity it was originally played. When set to 200%, the Track will play twice as loud, up to a full velocity level of 127.

Hardware: Use the **Cursor Buttons** to select the **V%** field, and use the **Data Dial** or the **-/+** buttons to edit the overall velocity of the selected Track in percent.



Click the **M** button to mute the selected Track. Click the **S** button to solo the selected Track. When a **Solo** is activated from the **Main** page, the **Solo** function follows the current Track. In other words, if you have soloed Track 1, and turn to Track 2, now Track 2 will be soloed.

Hardware: Press **F5 (Mute)**, to mute or unmute the selected Track. Press **F6 (Solo)** to solo or unsolo the selected Track.

Click the **Type** drop-down menu to select what kind of Program the Track will use: a *Drum* Program, *Keygroup* Program, *Midi* Program or a *Plugin* Program.

Track Section for Drum Programs and Keygroup Programs

Click the **Program** drop-down menu to select which Program you want to use. To create a new Program, click the + icon next to the drop-down menu.

Track Section for MIDI Programs

When the Track's Program **Type** is set to *Midi*, the Track Section will look slightly different from other Programs:

Click the **Port** drop-down menu and select the desired MIDI port. This is where the Sequence data will be sent. The drop-down menu shows you the available MIDI ports as set in the **MIDI** tab of the **Preferences** window. For more information, see the **Preferences: MIDI Tab** section of this guide.

Click the **MIDI Ch** drop-down menu to select the MIDI channel (from 1 to 16) you want to send MIDI messages over.

Click the **Prog Ch** drop-down menu to select a MIDI Program Change message (from 1 to 127 or *Off*). This is useful for selecting a particular preset in your MIDI sound module.

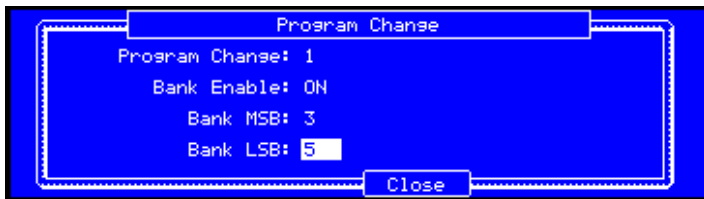
Click the **Bank** drop-down menu to select a Bank Select or Bank MSB (Most Significant Byte) message (from 0 to 127 or *Off*).

Click the **LSB** drop-down menu to select a Bank LSB (Least Significant Byte) message (from 0 to 127).



Hardware:

1. Use the **Cursor Buttons** to select **Port** and then use the **Data Dial** or **-/+** buttons to select the desired MIDI port. This is where the Sequence data will be sent.
2. Use the **Cursor Buttons** to select **Ch** and then use the **Data Dial** or **-/+** buttons to select the MIDI channel (from 1 to 16) you want to send MIDI messages over.
3. Use the **Cursor Buttons** to select **PC** and then press the **Window** button.
4. In the **Program Change** window that appears, use the **Cursor Buttons** to select the field and use the **Data Dial** or **-/+** buttons to select the setting(s) of the following:
Set the **Program Change** message from 0 to 127 or to *Off*.
Set **Bank Enable** to *On*.
Set the **Bank MSB** (Most Significant Byte) and **Bank LSB** (Least Significant Byte) message from 0 to 127 or to *Off*.
5. Press **F4 (Close)** to close the window.

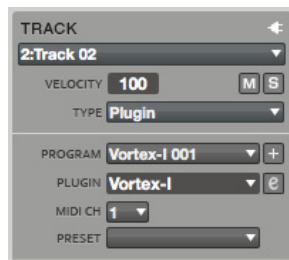


The Program Change window in the display of the MPC hardware

Track Section for Plugin Programs

When the Track's Program **Type** is set to *Plugin*, the Track Section will look slightly different from other Programs:

If your Project already contains the desired plugin, click the **Program** drop-down menu to select it. In the window that appears, you can click checkboxes to re-order your list of plugins: **Sort by type** or **Sort by manufacturer**. Click **Select** to load the selected plugin or **Close** to cancel the operation.



If you want to add a new plugin to the Project, click the **+** icon next to the **Program** drop-down menu. A new Program name (*Plugin ###*) will appear in the Program drop-down menu (you can click it to enter a new name for it). Then, click the **Plugin** drop-down menu, select the desired plugin from the list, and click **Select** to select it or **Close** to cancel. Click the **e** button to open the user interface of the loaded plugin.

Click the **MIDI Ch** drop-down menu to select a MIDI channel (from 1 to 16) the Plugin Program will use. Use this setting when you are working with a virtual instrument that supports multi-mode.

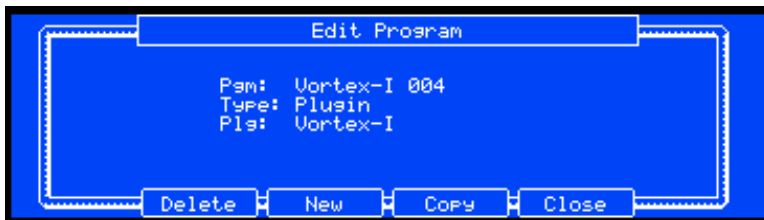
Click the **Preset** drop-down menu to select a preset for your plugin.

Hardware: To turn a Track's Program into a Plugin Program:

1. In Main Mode, with the **Type** field selected, use the **Data Dial** or **-/+** buttons to select *Plugin* as the Program type, and then press **F5 (Do It)** to confirm or **F4 (Cancel)** to cancel.
2. Next, select desired plugin:

If your Project already contains the desired plugin, use the **Data Dial** or **-/+** buttons to select it.

If you want to add a new plugin to the Project, press **Window**. In the **Edit Program** window that appears, press **F3 (New)** to create a new Program, and then use the **Data Dial** or **-/+** buttons to select *Plugin*, and press **F5 (Do It)**. Back in Main Mode, use the **Cursor Buttons** to select the **Plg** field, and then use the **Data Dial** or **-/+** buttons to select the desired plugin. Press **F4 (Select)** to select it or **F5 (Back)** to cancel.



The **Edit Program** window in the MPC hardware display

Important: Please see **Plugin Programs** in the **Program Types** section of this manual to learn how to route Tracks to your Plugin Programs.

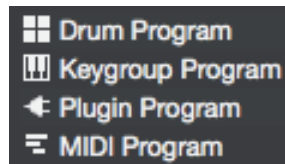
Project Information Section

The Project Information section shows the Project name as well as all Programs and samples loaded into the software's current project.

You can simply drag and drop a sample from the **Project Information** section onto any pad to assign it. How a sample can be played and edited depends on the Program. Refer to the **Program Types** section for more information.



The **Program** column displays all available Programs in the Project. Next to each Program in the list, an icon will indicate whether it is a Drum Program, Keygroup Program, MIDI Program, or Plugin Program (for Plugin Programs, the plugin name is in gray on the right side of the column).



Right-click a Program to open a menu with the following options:

- *Duplicate* makes a copy of the selected Program and adds a -1 to the Program name.
- *Delete* deletes the selected Program. To avoid accidental deletion, a window opens for you to confirm or cancel the operation.
- *Save* saves the current Program to your hard disk. A dialog window opens automatically where you can select a save location. Samples will automatically be saved with a Program.
- *Rename* opens a window where you can rename your Program.

Hardware: Press the **Window** button to open the **Edit Current Program** display page:

- Press **F2 (Delete)** to delete the selected Program. To avoid accidental deletion, a window opens for you to confirm or cancel the operation.
- Press **F3 (New)** to create a new Program. Use the **Data Dial** or **-/+** buttons to select the type of Program you want to create, and then press **F5 (Do It)** to confirm or **F4 (Cancel)** to cancel.
- Press **F4 (Copy)** to make a copy of the selected Program. This also adds a **-1** to the new Program name.
- Press **F5 (Close)** to close the Edit Current Program display page.

The above operations can also be done for Sequences (**Seq**) and Tracks (**Trk**).

The **Sample** column displays the available samples. Select **All Samples** to view all samples in the Project, or select a Program or Sequence below to view the samples in that Program or Sequence only. Double-click a sample in the **Sample** column to load it in Sample Edit Mode.

Right-click a Sample to open a menu with the following options:

- *Delete* deletes the selected sample. To avoid accidental deletion, a window opens for you to confirm or cancel the operation.
- *Save* saves the current sample to your hard disk. A dialog window opens automatically where you can select a save location.
- *Rename* opens a window where you can rename the selected sample. This does not affect the original file's name.
- *Edit* opens Sample Edit Mode for the selected sample. For more information on that, please refer to the **Sample Edit Mode** section.

Click the trash can icon in the upper-right corner of the Project Information Section to delete samples from the Project. In the window that appears, you can select **Purge Unused Samples**, which deletes any samples not assigned to a pad from the Project, or **Delete All Samples**, which deletes all samples within the Project. Click **Do It** to proceed or **Close** to cancel without deleting anything.

Important: You can undo this deletion (i.e., with the **Undo** command or hardware button), if needed.

Program Edit Mode



Program Edit Mode contains all parameters for editing your Programs:

- For Drum Programs and Keygroup Programs, this mode includes the parameters of each Layer as well as all synthesis parameters and insert effect settings. These two Program types will have different parameters due to how they are set up (Drum Programs have fewer parameters than Keygroup Programs).
- For MIDI Programs or Plugin Programs, skip to the **Program Edit Mode for MIDI Programs and Plugin Programs** section for more information.

For more general information on the differences between these four kinds of Programs, please see the **Program Types** section.



Important:

- MPC Renaissance users:** All parameters of Program Edit Mode are arranged in a grid of up to 16 parameters. These parameters correspond to the 16 **Q-Link Knobs** of the MPC Renaissance. The "4 x 4" grid lets you adjust the parameters shown in MPC Renaissance's display, quickly and intuitively.
- MPC Studio users:** MPC Studio has four **Q-Link Knobs** which can be assigned to the corresponding Q-Link Knob column with the **Scroll Knob** above the Q-Link Knobs.

In the software, click the **Program Edit** tab in the Mode Tab Section.

Hardware: To enter Program Edit, press the **Prog Edit** button.

Drum Programs: To select a Drum Program for editing, select the desired pad first. Do one of the following:

- In the software, click the desired pad in **Main Mode**.
- In the software, click the pad row in the grid in **Program Edit Mode**.
- On your MPC hardware, hit the desired pad.

Master Section

In the Master Section, you can set the playback mode and tuning for the overall Program.

Mode sets the playback mode for the Program's pads. In *Mono* Mode, only one pad will sound at a time. If a pad is played while another (or the same one) is still playing its sample(s), the new pad will immediately mute all other currently playing pads in that Program. In *Poly* Mode, several pads can be triggered at the same time (limited only by the total number of voices available).



Semi lets you transpose the selected Program pad to 12 semitones up or down.

Fine provides fine-tuning of the Program by fractions of a semitone up or down.

Trans (only available for Keygroup Programs) transposes incoming notes; it does not change the pitch of a sample.

Hardware: To edit the Master Section, press the **F1** button. Use the **Q13**, **Q14**, and **Q15 Q-Link Knobs** for direct access to the parameters. Remember that Drum Programs offer fewer parameters than Keygroup Programs.

Simultaneous Play Section (Drum Programs Only)

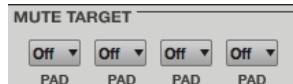
This section lets you set up to four pads that can be triggered by hitting one pad only. Use this function to trigger a stack of sounds (e.g., layered bass drums).



Hardware: To select the pads for **Simultaneous Play**, press the **F1** button (**Master**). Use **Q-Link Knobs Q5–Q8** to select the corresponding pads. This function is available only in Drum Programs.

Mute Target Section (Drum Programs Only)

For the currently selected pad, you can select up to four pads as **Mute Targets**. When the pad is played, it will immediately silence its Mute Targets. Click each **Pad** drop-down menu to select the desired Mute Target.



Hardware: To select the Mute Target pads, press the **F1** button (**Master**). Use **Q-Link Knobs Q1 – Q4** for selecting the corresponding pads. This function is only available in Drum Programs.

Tips:

- This feature is useful for programming realistic hi-hats, especially if only the open or closed hat should be heard.
- This feature is similar to the Mute Group feature, available for both Drum Programs and Keygroup Programs. For more information about Mute Groups, see **Keygroup Play Modes Section** (for Keygroup Programs) and **Pad Play Modes Section** (for Drum Programs) in this chapter.

Keygroup Play Modes Section (Keygroup Programs Only)

Here, you can set the behavior for each pad's samples in a Keygroup Program.

Mute Groups let you assign the selected pad to one of the 32 available groups. When pads assigned to the same Mute Group receive MIDI notes, the last pad played will silence all other pads in that Mute Group.



Layer Play determines how multiple samples assigned to the same pad are played:

- **Cycle (Cyc):** Each time the pad is played, it will play the next layer's sample. In other words, the samples will cycle through the layers as follows: 1, 2, 3, 4, 1, 2, 3, 4... etc.
- **Velocity (Vel):** The pad will switch between layers depending on how hard you hit a pad.
- **Random (Ran):** Each time the pad is played, it will play one its layer's samples at random.

Sample Play determines how much of the sample is played:

- *One-Shot*: The entire sample will play from start to end. Use this when you want to play short sounds.
- *Note-On*: The sample will play only as long as the pad is held. This is better for longer samples so you can control a sound's duration by pressing and holding its corresponding pad.

Hardware: To edit the **Keygroup Play Modes** parameters, press the **F1** button (**Master**). Use **Q-Link Knobs Q9 – Q11** for direct access of all three parameters. These parameters are available only in Keygroup Programs.

Key Group Section (Keygroup Program Only)

Here, you can set additional Keygroup Program parameters.

Tips:

- The loaded sample's root key will determine where the original pitch is located. For example, if the root key is *C3*, the original sample is located at *Pad D13*.
- In a Keygroup Program, you can also use the pads on your MPC hardware to play samples assigned to Keygroups. The 128 pads (A01 to H16) correspond to MIDI notes from note number 0 to 127, allowing you to easily play a melody with a single sample over a wide range.



KG Select (Keygroup Select) lets you select a specific Keygroup for editing. This parameter works in conjunction with the **No. KG** (Numbers of Keygroups) parameter in the **Edit Layers** section, which lets you create up to 128 Keygroups within one Keygroup Program. A default Keygroup Program contains only one single Keygroup. When you have created more than one Keygroup with **No. KG**, use **KG Select** to select any Keygroup for editing. *All* selects all available Keygroups of a Keygroup Program for simultaneous editing.

Keytrack allows you to switch a sample's automatic transposition on or off. If this is off, you will always hear the same pitch of the sample, no matter which note is triggered by pads or a connected MIDI keyboard.

Level controls the overall volume level of the loaded sample(s).

Pan controls the overall panning of the loaded sample(s) in the stereo field.

Note Range lets you restrict the key range used for a sample's playback. Only notes with a key number higher or equal (**Lo**) or lower and equal (**Hi**) to the selected value will trigger a sound. The settings for **Lo** and **Hi** are also shown in the virtual keyboard in the **Edit Layers** section.

Tip: Set the **Lo** parameter to **A0** and the **Hi** parameter to **C8** to emulate the range of a standard 88-key piano.

Semi lets you transpose the sample 12 semitones up or down, while **Fine** provides fine-tuning of each layer by fractions of a semitone up or down.

Tip: The **Edit Layers** section has some parameters similar to those in this section (**Level**, **Pan**, **Semi**, **Fine**, **Note Range**). Remember that **Key Group** parameters control the overall settings for the sample, while **Edit Layer** parameters control the settings for each layer (up to 4).

Hardware: To edit the **Key Group** parameters, press the **F1** button (**Master**). Use **Q-Link Knobs Q1 – Q8** for direct access of all parameters. These parameters are available only for Keygroup Programs.

Edit Layers Section

Each pad can trigger up to four samples, which are assigned in four individual layers. Each layer has separate parameters for **Sample**, **Semi**, **Fine**, **Level**, **Pan** and **Velocity**. Keygroup Programs also have a **Root Note** parameter.

Note: For easier recognition, Drum Program controls are colored in blue while Keygroup Programs are colored in red.

Click the **Sample** drop-down menu to select the sample file for that layer. Remember that the sample has to be loaded into the Project Information beforehand. For information on how to load samples into a Project, please see **File Browser** and **Program Types** earlier in this manual.

Tip: For Drum Programs, you can click and drag a sample from the **File Browser**, your computer's **Desktop**, or your computer's **Explorer** (Windows) or **Finder** (Mac OS X) directly onto a pad to load it to Layer 1.



Semi lets you transpose the selected layer 12 up to semitones up or down.

Fine provides fine-tuning of each layer by fractions of a semitone.

Level lets you adjust the each layer's volume, letting you control the "balance" of the samples assigned to the pad.

Hardware: To edit the first 16 Layer parameters located on the left of the vertical separation lines in the **Layers** section, press the **F2** button (**Samples**). Use the **Q-Link Knobs** for direct access of their respective **Edit Layers** parameters. Remember that Drum Programs have fewer parameters than Keygroup Programs.

Pan adjusts the stereo placement of the respective layer.

Velocity defines the velocity range of each layer. Set the values by doing one of the following:

- In the software, click in the segment chain on the right side of the **Layer** area and drag its left and right ends to the desired values.
- On your MPC hardware, press the **F3** button and changed the displayed values with the **Data Dial** or **-/+** buttons.

A range from *0* to *127* lets the layer respond to the entire velocity range which is input from the respective pad while, for example, a range from *100* to *127* lets the layer respond only to higher velocity levels. By assigning several samples of one instrument, you can create a realistic-sounding "multi-sample" by adjusting the velocity ranges of each layer accordingly. (For example, you may have three samples of a drum hit with low force, medium force, and high force. You can set each sample to a layer and set the Velocity ranges so only low velocities trigger the low-force sample, only mid-range velocities trigger the medium-force sample, and only high velocities trigger the high-force sample.)

Root Note (available for Keygroup Programs only), you can set the root key of each loaded sample.

Hardware: To edit the second 16 Layer parameters located on the right of the vertical separation lines in the **Layers** section, press the **F3** button (**Layer 2**). Use the **Q-Link Knobs** for direct access of their respective **Edit Layers** parameters. Remember that Drum Programs have fewer parameters than Keygroup Programs.

The virtual keyboard (available for Keygroup Programs only) shows the **Note Range**, which can be set in the **Key Group** section. You can also drag the left or right range with your computer mouse.



Click the red bar above the virtual keyboard to set the overall key range for the selected Keygroups.

No. KG (Number of Keygroups) lets you create up to 128 Keygroups within a Keygroup Program. This is very useful when working with multi-samples. For example, if you want to create a realistic piano, you can use different Keygroups (e.g., 88 for a grand piano) with every Keygroup containing its own sampled note (with up to 4 possible velocity layers). A single Keygroup can be edited by using the **KG Select** parameter in the **Key Group** section. Alternatively, you can select *All* Keygroups for simultaneous editing.



Edit Zones (only available in Drum Programs) displays an overview of any selected pad(s). Click one of the checkboxes on the right to select how the selected pads will be edited. In the software, you can select pads directly in **Program Edit** Mode by clicking with your computer mouse. On your MPC hardware, you can select pads by striking them.

- *Current*: Only the currently active pad (the purple square with an orange border) can be edited.
- *Multiple*: All selected pads (squares with an orange border; the purple square is the active one) can be edited simultaneously.
- *All*: All pads can be edited simultaneously.



Filter Section

The **Filter Type** drop-down menu lets you select a filter for the selected pad. See the **Filter** definition in the **Glossary** for an explanation of the available filter types.

Cutoff controls the cutoff frequency for low-pass and high-pass filter types or the center frequency for band-pass and band-stop filter types.

Reso controls the resonance/emphasis of the frequencies around the cutoff point.

Tip: Use values lower than 80 to give more brilliance to the sound. At values higher than 80, the sound will result in a strong audible boost around the cutoff frequency.

Env determines the amount of influence the filter envelope has on the cutoff frequency. Higher settings will increase the modulation of the filter by the envelope; lower settings will result in only subtle changes of the filter **Cutoff** over time.

Tip: To give a sound a more distinctive attack, increase the **Env** setting and set low **Atk** and **Decay** values as well as a medium-low **Sust** value of the **Filter Envelope**. This will start a sound with the filter opened and close it shortly afterward, giving it a bright start followed by a darker sustain. String sounds, on the other hand, can sound much more "alive" with low **Env** settings and a high **Atk** value, resulting in a slight fade-in of the higher frequencies.

The **Modulation Sources** set the amount for different modulation. The following modulation sources are available:

- **V>Start** (for Drum Programs only) sets how much velocity is needed (for a triggered pad or key) to modulate the sample startpoint.
- **Kbd>Flt** (for Keygroup Programs only) sets how much aftertouch data (from a pad or a MIDI-keyboard) is needed to modulate the cutoff frequency.
- **V>Atk** (Velocity ➔ Attack) sets how much velocity is needed (for a triggered pad or key) to modulate the Attack phase for the Amp envelope.
- **V>Env** (Velocity ➔ Envelope) enables velocity information to control the amount of the filter envelope's effect on the cutoff frequency.
- **V>Flt** (Velocity ➔ Filter) uses the velocity of a pad or key to modulate the cutoff frequency directly.



The **Filter Envelope** controls affect the filter frequency. The knobs control the envelope shape or time-variant modulation output. Adjust envelope's influence on the filter frequency with the **Env** knob. See the following ***Anatomy of an Envelope*** below to learn about the envelope parameters.

The **Amp Envelope** controls affect level changes over time. The knobs control the envelope shape or time-variant modulation of a sound's level. See the following ***Anatomy of an Envelope*** below to learn about the envelope parameters.

Hardware:

To edit the **Filter**, **Filter Envelope**, and **Amp Envelope** parameters, press the **F4** button (**Flt Env**). Use the **Q-Link Knobs** for direct access of all 16 parameters.

To set the Filter Envelope type or Amp Envelope type, press the **Window** button while on the **Flt Env** tab. Use the **Cursor Buttons** to select the **Filter Envelope** or **Amp Envelope**, and use the **Data Dial** or **-/+** buttons to select **AD** or **AHDS**. See the following ***Anatomy of an Envelope*** below to learn more about the envelope parameters.

Anatomy of an Envelope

An envelope creates a variable control signal. It can be used, for instance, to modulate the filter settings of a sound over a given period of time.

For Drum Programs, the software offers two envelope types comprised of separately controllable parameters. Click the **AD** box to check or uncheck it, letting you switch between two envelope types: **AD** (checked) or **AHDS** (unchecked).

For Keygroup Programs, the software offers only AHDS envelopes.

With **AHDS** envelopes, the following happens when you trigger a sample:

1. Within the period of time you have defined with the Attack (**Atk**) parameter, the sample volume rises to its maximum value.
2. The sample's maximum volume will be maintained during the **Hold** phase.
3. During the **Decay** phase, the sample's volume will gradually drop to the sustain level.
4. The sample's volume will stay at the sustain level (**Sust**) until the pad or key is released.



With **AD** envelopes, the following happens when you trigger a sample:

1. Within the period of time you have defined with the Attack (**Atk**) parameter, the sample volume rises to its maximum value.
2. The sample's maximum volume will be maintained until its **Decay** phase, when the sample's volume will gradually drop to zero over the set duration. Click the **Type** drop-down menu to select *Decay From Start* (the volume will start decreasing immediately after reaching its maximum level) or *Decay From End* (the maximum volume will be maintained for a hold phase until it reaches the decay phase).



Pad Play Modes Section (Drum Programs Only)

Here, you can set the behavior for each pad's samples in a Drum Program.

Mute Groups let you assign the selected pad to one of the 32 available groups. When pads assigned to the same Mute Group receive MIDI notes, the last pad played will silence all other pads in that Mute Group.



Tip: This feature is useful for programming realistic hi-hats, especially if only the open or closed hat should be heard.

Layer Play determines how multiple samples assigned to the same pad are played:

- **Cycle (Cyc):** Each time the pad is played, it will play the next layer's sample. In other words, the samples will cycle through the layers as follows: 1, 2, 3, 4, 1, 2, 3, 4... etc.
- **Velocity (Vel):** The pad will switch between layers depending on how hard you hit a pad.
- **Random (Ran):** Each time the pad is played, it will play one its layer's samples at random.

Sample Play determines how much of the sample is played. *Note-On* (only as long as the note is held).

- **One-Shot:** The entire sample will play from start to end. Use this when you want to play short sounds.
- **Note-On:** The sample will play only as long as the pad is held. This is better for longer samples so you can control a sound's duration by pressing and holding its corresponding pad.

Pad Play lets you select between two options: In *Mono Mode*, only one pad will sound at a time. If a pad is played while another (or the same one) is still playing its sample(s), the new pad will immediately mute all other currently playing pads in that Program. In *Poly Mode*, several pads can be triggered at the same time (limited only by the total number of voices available).

Hardware: To edit the **Pad Play Modes** parameters, press the **F5** button (**Lfo Mod**). Use **Q-Link Knobs Q13 – Q16** for direct access of all 4 parameters. These parameters are available only in Drum Programs.

Velocity Sensitivity Section

Here, you can set how much velocity affects various sound parameters: **Pitch**, Filter Envelope Attack (**Atk**), Amplifier (**Amp**) and Panning (**Pan**).

When you hit a pad softly, only minimal modulation is applied. When you hit it harder, the modulation amount also gets stronger depending on the setting of the corresponding dial.



Hardware: To edit the **Velocity Sensitivity** parameters, press the **F5** button (**Lfo Mod**). Use **Q-Link Knobs Q13 – Q16** for direct access of all 4 parameters. Remember that a Drum Program uses different Q-Link Knobs than a Keygroup Program.

LFO Section

A low-frequency oscillator (LFO) generates a periodic waveform with an adjustable frequency and shape which can be used for modulation purposes.

Wave sets the LFO waveform. Click the drop-down menu and select one of the following:

- *Triangle* (best suited for smooth modulations)
- *Sine* (best suited for smooth modulations)
- *Square* (interesting results with hard-panning modulations)
- *Saw* (can generate interesting filter or volume changes)
- *Saw Down* (can generate interesting filter or volume changes)
- *Noise* (generates random values and glides)
- *S&H* (samples a random value and holds it until the next value is generated)



Rate determines the LFO frequency when Sync is on. At lower values, it might take some time for the LFO to complete a cycle, while higher values will come closer to audible range.

Sync will synchronize the LFO to the tempo, based on the rate selected in the drop-down menu. When *None* is selected, Sync is off.

The LFO modulation **Destinations** determine the amount of effect of the LFO has on **Pitch**, Filter Cutoff frequency (**Filter**), Volume (**Amp**) and Panning (**Pan**).

Hardware: To edit the LFO parameters, press the **F5** button (**Lfo Mod**). For Drum Programs, use **Q-Link Knobs Q1 – Q7** for direct access to all seven parameters. For Keygroup Programs, use **Q-Link Knobs Q5 – Q12** for direct access to all seven parameters. (Remember that a Drum Program uses different controls than a Keygroup Program.)

Controller Mod Section (Keygroup Program Only)

This section determines the influence of additional play controllers on various sound parameters.

Important: To use these parameters, make sure that a connected MIDI device can send pitch bend messages as well as aftertouch and modulation wheel data.



Pitch Bend sets the range (in semitones) of a connected MIDI keyboard's pitch-bend wheel.

WHL>LFO (Wheel to LFO) determines how much a connected MIDI keyboard's modulation wheel affects the LFO intensity.

Aft>Filt (Aftertouch to Filter Cutoff) determines how much a connected MIDI keyboard's aftertouch data affects the filter cutoff.

Hardware: To edit the **Controller Mod** parameters, press the **F5** button (**Lfo Mod**). Use **Q-Link Knobs Q2 – Q4** for direct access of all three parameters. Remember that these parameters are available only in Keygroup Programs.

Pad Insert Effects Section

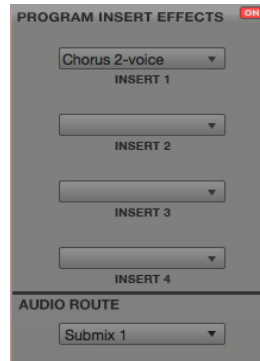
Here, you can select up to four insert effects for each pad. You can use various effects included in your MPC software as well as other VST and AU plugins installed on your computer.

Tip: A list of all available MPC software effects and their parameters is in the *Effects and Parameters* chapter of the *Appendix*.

In the software, load a pad insert effect by following these steps:

1. Click the button in the upper-right of the panel of the panel so it reads *On*.
2. Click the small arrow (▼) on the right of the corresponding insert slot.
3. Select the desired effect from the drop-down menu.

To edit the parameters of a loaded effect, click the effect name to open a window. The effect's user interface depends on the loaded effect type. Most VST and AU effects have a graphical user interface.



Tip: Insert effects and send effects can also be loaded and edited in Program Mixer Mode. For more information, please see the *Program Mixer Mode* chapter.

Hardware: To load and edit Pad Insert Effects:

1. Press **F6 (Effects)**.
2. Use the **Cursor Buttons** to select the Inserts field and use the **Data Dial** or **-/+** buttons to set it to *On*.
3. Use the Cursor Buttons to select the desired insert slot of the **Send** level.
4. Use the **Data Dial** or **-/+** buttons to open an additional display page to select the desired effect type as well as change the effect send level. Press **F4 (Select)** to load the selected effect or **F3 (Back)** to close the **Select Effect** display page.

The **Q-Link Knobs** can adjust the parameters, but you first need to assign them to the Q-Link Knobs in the software's **Q-Link Section**. For more information about this, please see the *Q-Link Section*.

You can also open all effects parameters by pressing **Shift + Seq Edit / Effects** on the hardware. Here, you can add effects and edit their parameters with **F6 (Edit)**. The effects can be applied to individual pads, entire Tracks, or the master mix. Note that effects assigned to the master mix cannot have their parameters assigned to the Q-Link Knobs.

Program Edit Mode for MIDI Programs and Plugin Programs

For MIDI Programs and Plugin Programs, Program Edit Mode looks a bit different.

You will see an overview of all available parameters of your loaded virtual instrument, including a corresponding rotary knob for editing. We recommend editing a virtual instrument by using its own graphical user interface, though.

To assign a parameter to one of the controls, click the drop-down menu above the corresponding controller and select it from the drop-down menu. In this way, you can easily set up arrangements of 16 knobs to be controlled by your MPC hardware.

You can use Program Edit Mode to directly edit a set of parameters in a section with your MPC hardware.



Hardware: To edit virtual instrument parameters, press the corresponding **F** button (**Page1** to **Page6**). Use the MPC hardware **Q-Link Knobs** for direct access of all 16 parameters that are displayed. You can use the **Cursor Buttons** to navigate to a desired parameter location in the display and change the parameter with the **-/+** buttons or the **Data Dial**.

Program Mixer Mode



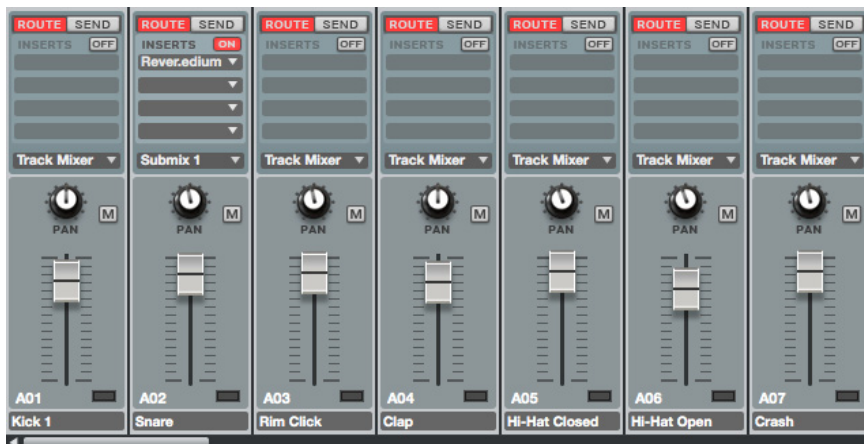
In Program Mixer Mode, you can set the levels, stereo panning, and effects for a Program:

- For Drum Programs, this mode shows a channel strip for each individual pad (of 128).
- For Keygroup Programs, MIDI Programs, or Plugin Programs, this mode shows a channel strip for one channel only.

For more general information on how these Programs differ, please see the **Program Types** section.

In the software, click the **Program Mixer** tab in the Mode Tab Section.

Hardware: To enter Program Mixer Mode, press the **Prog Mix** button.



Program Mixer Mode works like a regular audio mixer and offers various settings for each channel. All channels' functionality is identical. If a sample has been assigned to a pad, its name is displayed below the channel fader.

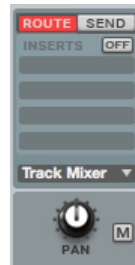
Routing

In the software, to set the routing for a channel:

1. Click **Route** button of the channel.
2. Click the drop-down menu just above the **Pan** knob.
3. Select the desired output (e.g., *Out 3,4*) to route the audio signal directly to this output. (You need an audio interface that is equipped with more than two outputs.)

Hardware: To set the routing for a channel:

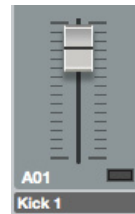
1. Press **F6 (Route)**.
2. Use the **Cursor Buttons** to select a pad. You can use the **Pad Bank** buttons to select different sets of 16 channels.
3. Use the **Data Dial** or **-/+** buttons to select the desired output. (**MPC Renaissance users:** *Out 1,2* are routed to the **Stereo Out** jacks. *Out 3,4* are routed to the **Assignable Mix Out** jacks.)



Levels

In the software, click the channel fader and drag it up or down to set the level. To view more mixer channels, use the scroll bar under the channel faders at the bottom of the window.

Hardware: To set the level for a channel, press **F2 (Level)** and use the corresponding **Q-Link Knob** for editing. You can use the **Pad Bank** buttons to select different sets of 16 channels.



Panning

In the software, click the channel's **Pan** knob and drag it up or down to set the position. To view more mixer channels, use the scroll bar under the channel faders at the bottom of the window.



Hardware: To set the panning for a channel, press **F3 (Pan)** and use the corresponding **Q-Link Knob** for editing. You can use the **Pad Bank** buttons to select different sets of 16 channels.

Mute

In the software, click the channel's Mute button (**M**) to mute it. To view more mixer channels, use the scroll bar under the channel faders at the bottom of the window.



Hardware: To mute a channel, press **F4 (Mute)** and touch the top of the corresponding **Q-Link Knob** to toggle between "mute" and "mute off." You can use the **Pad Bank** buttons to select different sets of 16 channels.

Send Effects

Important: To use a send effect, you have to load an effect into the corresponding send effect slot in Track Mixer Mode.

Tip: See the **Overview** section of the **Effects** chapter to learn more about how insert and send effects work in the software.

To load and edit a pad send effect and set its levels:

1. In the software, click the **Track Mixer** tab in the Mode Tab Section.
 2. In the **Send Effects** column on the right of the software window, under one of the **Return** slots, click the downward (▼) arrow of the slot you want to assign an effect to. Select an effect from the window that appears.
 3. Click the knob for that **Return** slot and drag it up or down to set the effect level.
 4. Click the **Program Mixer** tab in the Mode Tab Section.
 5. Click the desired pad's channel's **Send** button.
 6. Click the **Send** knob whose number corresponds to the **Return** slot and drag up or down to adjust the send level.
- Click a loaded effect name to open its graphic user interface for more detailed editing.



Hardware:

To load a pad send effect and set its return level:

1. Press **Shift + Seq Edit / Effects**.
2. Use the **Cursor Buttons** to select the desired slot.
3. Use the **Data Dial** or the **-/+** buttons to open another page to select an effect. Click **F4 (Select)** to load it, or click **F3 (Back)** to close the page.
4. Use the **Cursor Buttons** to select the effect's **Level** parameter.
5. Use the **Data Dial** or **-/+** buttons to set the return effect level.

After loading a send effect and setting its return level, set the level the pad sends to it:

1. Enter Program Mixer Mode by pressing the **Prog Mix** button.
2. Press **F4 (Send)** to view the pads' channels' send effect levels. (To show another set of 16 pads, use the **Pad Bank** buttons to select another bank.)
3. Use the **Q-Link Knobs** to adjust the send level of the corresponding pads. Alternatively, use the **Cursor Buttons** to select the desired pads and use the **Data Dial** or **-/+** buttons to set the level.
4. You can repeatedly press **F4 (Send)** to cycle through the four available insert effect slots. The small squares below the tab indicate the currently selected slot.

Insert Effects

Tip: See the **Overview** section of the **Effects** chapter to learn more about how insert and send effects work in the software.

To load and edit pad insert effects:

1. In the software, click the **Program Mixer** tab in the Mode Tab Section.
2. Click the desired pad's channel's **Route** button.
3. Click the button next to **Inserts** so it says *On*.
4. Click the downward arrow (▼) of the slot you want to assign an effect to. Select an effect from the window that appears.

Click a loaded effect name to open its graphic user interface for more detailed editing.



Hardware: To load pad insert effects:


1. Enter Program Mixer Mode by pressing the **Prog Mix** button.
2. Press **F5 (Insert)** to view the pads' channels' insert effect slots.
3. Use the **Cursor Buttons** to select the desired pad. (To show another set of 16 pads, use the **Pad Bank** buttons to select another bank.)
4. Use the **Data Dial** or the **-/+** buttons to open another page to select an effect. Click **F4 (Select)** to load it, or click **F3 (Back)** to close the page.
5. You can repeatedly press **F5 (Insert)** to cycle through the four available insert effect slots. The small squares below the tab indicate the currently selected slot.

When you select a pad insert effect, it will automatically be routed to *Submix 1*. If you want, you can change where it is routed:

1. In the software, click **Program Mixer** tab in the Mode Tab Section.
2. Click the desired pad's channel's **Route** button.
3. Click the downward arrow (▼) of the drop-down menu above the pad's channel's **Pan** knob.
4. Select any one of the following outputs: the *Track Mixer*, *Submix 1 to 8*, or *Out 1,2 to Out 15,16*. The outputs that are not available in your audio hardware will be grayed out. If a loaded project has outputs routed that do not exist on your audio hardware, these will appear in red.

Remember: The MPC Renaissance offers the following physical outputs: 1,2 (main out) and 3,4 (assignable).

Track Mixer Mode

 In Track Mixer Mode, you can set the levels, stereo panning, and effects for each Track.

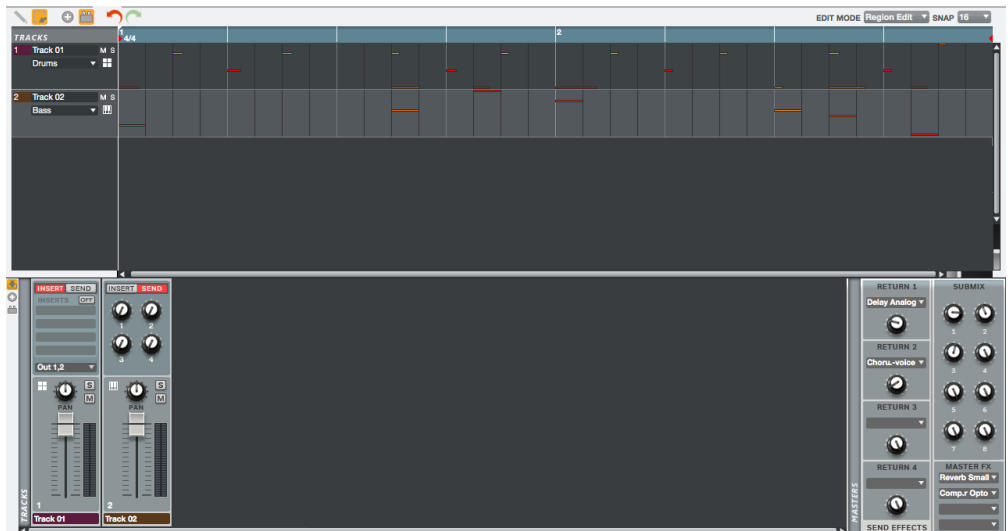
In the software, click the **Track Mixer** tab in the Mode Tab Section.

Hardware: To enter Track Mixer Mode, press **Shift + Prog Mix / Track Mix**.

While Program Mixer Mode lets you control the mix of individual pads and sounds within a Program, Track Mixer Mode lets you mix your Tracks within a Sequence. Up to 64 Tracks are available.

The upper half of the window shows narrow versions of the Tracks in that Sequence. They are for visual reference only and are not editable.

The lower half of the window contains a series of channel faders—one for each track—and works like a regular audio mixer with various settings for each channel. All channels are identical in functionality. By default used Tracks are named **Track 01**, **Track 02**, etc.



You can show or hide unused Tracks' channel strips (i.e., those with no note events) and/or plugins through which your tracks are routed:

- To show or hide the Send Effects and Master FX panels, click the downward arrow icon to the left of the channel strips or in the upper-left corner of the grid.
- To show or hide unused Tracks' channel strips, click the + icon to the left of the channel strips or in the upper-left corner of the grid.
- To show or hide plugin channel strips, click the plug icon to the left of the channel strips or in the upper-left corner of the grid.



Routing

To select a Track's audio output:

1. Click the downward arrow (▼) of the drop-down menu above the channel's **Pan** knob.
2. Select the output (e.g., *Submix 1* or *Out 3,4*). The software will route the audio signal directly to this selected output. You can select output pairs only if your audio interface supports them.

MPC Renaissance: *Out 1,2* are routed to the **Stereo Out** jacks. *Out 3,4* are routed to the **Assignable Mix Out** jacks.

Routing Tracks to Plugin Programs

You can route multiple Tracks to the same plugin by setting the Programs on those Tracks as Plugin Programs.

Important: Do this for every Track you want to route to a plugin.

To turn a Track's Program into a Plugin Program:

1. In the software, click the **Main Mode** tab.
2. In the **Track** section, select the Track you want to route to a plugin.
3. Click the **Type** drop-down menu, and select *Plugin*.
4. Click **OK** to create a Plugin Program.
5. Select the desired plugin:



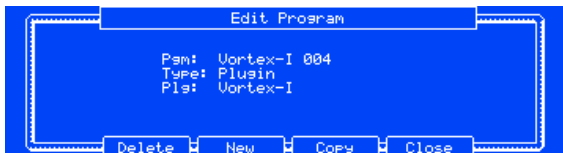
Remember: You have to specify where your plugins are located. This can be done in the software's **Preferences**. See the **Preferences: Plugins Tab** section for more information.

- If your Project already contains the desired plugin, click the **Program** drop-down menu to select it. In the window that appears, you can click checkboxes to re-order your list of plugins: **Sort by type** or **Sort by manufacturer**. Click **Select** to load the selected plugin or **Close** to cancel the operation.
- If you want to add a new plugin to the Project, click the **+** icon next to the **Program** drop-down menu. A new Program name (*Plugin ###*) will appear in the Program drop-down menu (you can click it to enter a new name for it). Then, click the **Plugin** drop-down menu, select the desired plugin from the list, and click **Select** to select it or **Close** to cancel. Click the **e** button to open the user interface of the loaded plugin.
- Click the **MIDI Ch** drop-down menu to select a MIDI channel (from 1 to 16) the Plugin Program will use. Use this setting when you are working with a virtual instrument that supports multi-mode.
- Click the **Preset** drop-down menu to select a preset for your plugin.

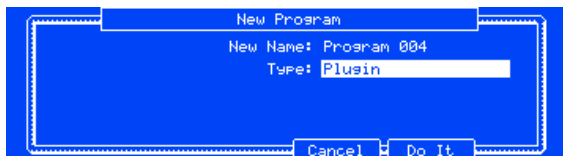
Hardware: To create and select a Plugin Program:

1. Press **Main** to enter Main Mode.
2. Use the **F3 (Track-)** and **F4 (Track+)** buttons to select the Track you want to route to a plugin.
3. Use the **Cursor Buttons** to select the **Type** field, and use the **Data Dial** or **-/+** buttons to select **Plugin**.
4. Select the plugin. Use the **Cursor Buttons** to select the **Pgm** field.
5. If your Project already contains the plugin, use the **Data Dial** or **-/+** buttons to select it.

If you want to add a new plugin to the Project, press **Window**. In the **Edit Program** window that appears, press **F3 (New)** to create a new Program, and then use the **Data Dial** or **-/+** buttons to select **Plugin**, and press **F5 (Do It)**. Back in Main Mode, use the **Cursor Buttons** to select the **Plg** field, and then use the **Data Dial** or **-/+** buttons to select the plugin. Press **F4 (Select)** to select it or **F5 (Back)** to cancel.



The **Edit Program** window in the Main Mode section in the display of the MPC hardware



The **New Program** window in the Main Mode section in the display of the MPC hardware

From here, you can route Tracks to different plugins by clicking the downward arrow (▼) of the drop-down menu above the **Pan** knob. Make sure you have already loaded the plugins so you can select them. To add new plugins to the Project see the earlier **Routing Tracks to Plugin Programs** part of this chapter.

Important: See the following **Levels for Plugin Programs** and **Panning for Plugin Programs** parts of this chapter for information about adjusting volume levels and panning for your Plugin Programs.

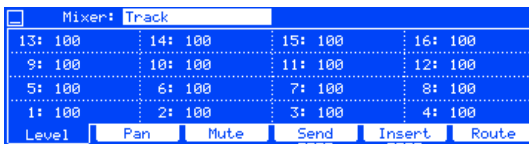
Tip: You can draw automation for each Track in the **Automation** lane under the grid in Main Mode, Program Edit Mode, Program Mixer Mode, Track View Mode, or Step Sequence Mode.



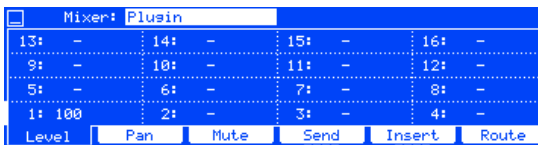
Levels

In the software, click the channel fader and drag it up or down to set the level. To view more mixer channels, use the scroll bar under the channel faders at the bottom of the window.

Hardware: To set the level for a channel, press the **F2** button (**Level**) and use the corresponding **Q-Link Knob** for editing. You can use the **Pad Bank** buttons to select different sets of 16 channels.



The **Level** tab's **Track** view in the Track Mixer Mode in the display of the MPC hardware



The **Level** tab's **Plugin** view in the Track Mixer Mode in the display of the MPC hardware

Levels for Plugin Programs

Channel faders for Tracks are on the left and channel faders for Plugin Programs are on the right of those. A drop-down menu above each channel fader's **Pan** knob displays where its audio is routed. For the Tracks, this menu displays the name of the Plugin Program through which you are routing them. For the Plugin Programs, this menu displays where all of the Plugin Program's audio (from the Tracks) is routed. Click the downward arrow (▼) to select another routing destination (e.g., *Out 1,2*, *Submix 1*, etc.).

Control the volume of a Track's note events routed to the Plugin Program by adjusting that Track's volume slider. Use the corresponding Plugin Program volume slider to control the volume level routed to its output.

Important: By default, some plugins do not support MIDI volume. In this case, adjust this at the plugin Track.



Note: MIDI Programs' and Plugin Programs' levels will initially appear as ?. This indicates that the Program is not sending any volume changes, which allows certain plugins to load with their optimal default settings. If you copy a Sequence, the level values will be copied with that Sequence. If you move to a new Sequence and put the same MIDI Program or Plugin Program on a new Track, though, these values will appear as ?.



Panning

In the software, click the channel's **Pan** knob and drag it up or down to set the position. To view more mixer channels, use the scroll bar under the channel faders at the bottom of the window.

Hardware: To set the panning for a channel, press the **F3** button (**Pan**) and use the corresponding **Q-Link Knob** for editing. You can use the **Pad Bank** buttons to select different sets of 16 channels.

Panning for Plugin Programs

Channel faders for Tracks are on the left and for Plugin Programs are on the right of those. A drop-down menu above each channel fader's **Pan** knob displays where its audio is routed. For the Tracks, this menu displays the name of the Plugin Program through which you are routing them. For the Plugin Programs, this menu displays where all of the Plugin Program's audio (from the Tracks) is routed. Click the downward arrow (▼) to select another routing destination (e.g., *Out 1,2*, *Submix 1*, etc.).



Control the panning of a Track's note events routed to the Plugin Program by adjusting that Track's **Pan** knob. Use the corresponding Plugin Program **Pan** knob to control the panning routed to its output.

Important: By default, some plugins do not support MIDI panning by default. In this case, adjust this at the plugin Track.

Note: MIDI Programs' and Plugin Programs' pan values will initially appear as ?. This indicates that the Program is not sending any pan changes, which allows certain plugins to load with their optimal default settings. If you copy a Sequence, the pan values will be copied with that Sequence. If you move to a new Sequence and put the same MIDI Program or Plugin Program on a new Track, though, these values will appear as ?.



Mute and Solo

In the software, click the channel's Mute button (**M**). To view more mixer channels, use the scroll bar under the channel faders at the bottom of the window.



Hardware: To mute a channel, press **F4 (Mute)** and press the top of the corresponding **Q-Link Knob** to toggle between mute and mute off. You can use the **Pad Bank** buttons to select different sets of 16 channels.

To solo a channel, click its Solo button (**S**), which will mute all other channels. You can solo as many channels as you like. To deselect solo, click the active solo button.

Send Effects

Important: To use a send effect, you have to load an effect into the corresponding send effect slot on the right side of the window.

Tip: See the **Overview** section of the **Effects** chapter to learn more about how insert and send effects work in the software.

To load and edit a Track send effect and set its levels:

1. In the software, click the **Track Mixer** tab in the Mode Tab Section.
2. In the **Send Effects** column on the right of the software window, under one of the **Return** slots, click the downward arrow (▼) in the drop-down menu of the slot you want to assign an effect to. Select an effect from the window that appears.
3. Click the knob for that **Return** slot and drag it up or down to set the effect level.
4. Click the desired channel's **Send** button.
5. Click the **Send** knob whose number corresponds to the **Return** slot and drag up or down to adjust the send level.

Click a loaded effect name to open its graphic user interface for more detailed editing.

Hardware:

To load a Track send effect and set its return level:

1. Press **Shift + Seq Edit / Effects**.
2. Use the **Cursor Buttons** to select the desired slot.



3. Use the **Data Dial** or the **-/+** buttons to open another page to select an effect. Click **F4 (Select)** to load it, or click **F3 (Back)** to close the page.
4. Use the **Cursor Buttons** to select the effect's **Level** parameter.
5. Use the **Data Dial** or **-/+** buttons to set the return effect level.

After loading a send effect and setting its return level, set the level the Track sends to it:

1. Enter Track Mixer Mode by pressing **Shift + Prog Mix / Track Mix**.
2. Press **F4 (Send)** to view the channels' send effect levels. (To show another set of 16 channels, select the **Track** field in the upper-right corner and use the **Data Dial** or the **-/+** buttons.)
3. Use the **Q-Link Knobs** to adjust the send level of the corresponding channels. Alternatively, use the **Cursor Buttons** to select the desired channel and use the **Data Dial** or **-/+** buttons to set the level.
4. You can repeatedly press **F4 (Send)** to cycle through the four available insert effect slots. The small squares below the tab indicate the currently selected slot.

Insert Effects

Tip: See the **Overview** section of the **Effects** chapter to learn more about how insert and send effects work in the software.

To load and edit Track insert effects:

1. In the software, click the **Track Mixer** tab in the Mode Tab Section.
2. Click the desired channel's **Insert** button.
3. Click the button next to **Inserts** so it says **On**.
4. Click the downward arrow (▼) of the drop-down menu of the slot you want to assign an effect to. Select an effect from the window that appears.

Click a loaded effect name to open its graphic user interface for more detailed editing.



Hardware: To load Track insert effects:

1. Enter Track Mixer Mode by pressing **Shift + Prog Mix / Track Mix**.
2. Press **F5 (Insert)** to view the channels' insert effect slots.
3. Use the **Cursor Buttons** to select the desired channel. (To show another set of 16 channels, select the **Track** field in the upper-right corner and use the **Data Dial** or the **-/+** buttons.)

4. Use the **Data Dial** or the **-/+** buttons to open another page to select an effect. Click **F4 (Select)** to load it, or click **F3 (Back)** to close the page.
5. You can repeatedly press **F5 (Insert)** to cycle through the four available insert effect slots. The small squares below the tab indicate the currently selected slot.

Master Effects

Tip: See the **Overview** section of the **Effects** chapter to learn more about how effects work in the software.

To load and edit a Master insert effect:

1. In the software, click the **Track Mixer** tab in the Mode Tab Section.
2. In the **Master FX** section in the lower-right corner of the window, click the arrow of the insert slot you want to assign an effect to. Select an effect from the window that appears.

Click a loaded effect name to open its graphic user interface for more detailed editing.



Hardware: To load a master insert effect:

1. Press **Shift + Seq Edit / Effects**.
2. Press **F4 (Insert)**.
3. Use the **Cursor Buttons** to navigate to the desired insert effect slot.
4. Use the **Data Dial** or the **-/+** buttons to open another page to select an effect. Click **F4 (Select)** to load it, or click **F3 (Back)** to close the page.

Track View Mode



Track View Mode gives you an overview of the Tracks of each Sequence. Use this mode to edit Tracks and Sequences simultaneously.

Tip: Use Track View Mode to switch quickly between Tracks in a Sequence. This allows for a faster editing workflow.

In the software, click the **Track View** tab in the Mode Tab Section.

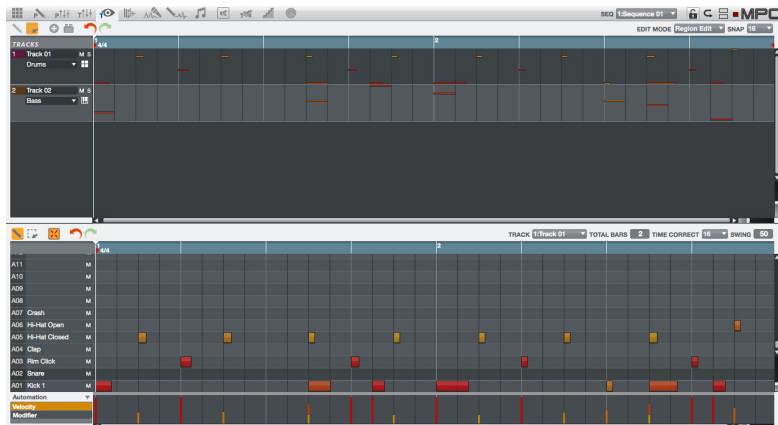
Hardware: To enter the Track View mode, press **Shift + Main / Track**.

The upper half of the window shows narrow versions of the Tracks in that Sequence. They are for visual reference only and are not editable.

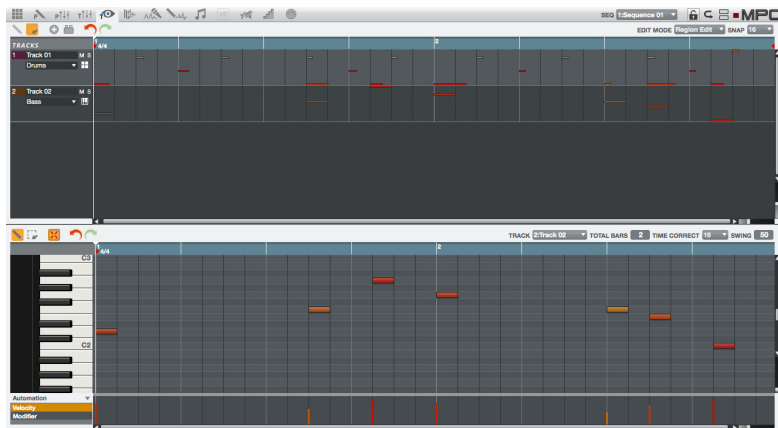
The lower half of the window is the standard grid (to learn more about this, please refer to ***The Grid*** chapter). Depending on what kind of Program is selected, this part will look different:

- When a Drum Program is selected, the Track View displays the drum grid.
- When a Keygroup Program, MIDI Program, or Plugin Program is selected, the Track View displays the piano roll editor.

Select a Sequence by clicking the **Seq** drop-down menu in the upper-right corner of the window. The Sequence's Tracks will appear in the upper half of the window. Select a Track to edit by clicking it. The Track's grid and automation lane will appear in the grid in the lower half of the window, where you can edit them easily.



Track View: Drum Program



Track View: Keygroup Program

Next Sequence Mode



Next Sequence Mode lets you trigger different Sequences simply by playing the pads. This is useful for live performances, letting you change a Song's structure in real time.

In the software, click the **Next Seq** tab in the Mode Tab Section.

Hardware: To enter Next Sequence Mode, press the **Next Seq** button.

The screenshot displays the AKAI software interface in Next Sequence Mode. The top timeline shows sequences 01 and 02. The bottom left shows a list of sequences. The bottom center shows the Pad Bank with 16 pads (A10-H12) and the Next Sequence section with performance controls. The bottom right shows the Project browser with a list of samples.

SEQUENCE	LENGTH	TEMPO
1 Sequence 01	2	120
2 Sequence 02	2	120
3 (unused)	2	120
4 (unused)	2	120
5 (unused)	2	120
6 (unused)	2	120
7 (unused)	2	120
8 (unused)	2	120
9 (unused)	2	120
10 (unused)	2	120
11 (unused)	2	120
12 (unused)	2	120
13 (unused)	2	120
14 (unused)	2	120
15 (unused)	2	120

PAD BANK

A10	A11	A12	A13
2 bars 120.0 BPM (unused)	2 bars 120.0 BPM (unused)	2 bars 120.0 BPM (unused)	2 bars 120.0 BPM (unused)
A10	A11	A12	A13
2 bars 120.0 BPM (unused)	2 bars 120.0 BPM (unused)	2 bars 120.0 BPM (unused)	2 bars 120.0 BPM (unused)
A14	A15	A16	A17
2 bars 120.0 BPM (unused)	2 bars 120.0 BPM (unused)	2 bars 120.0 BPM (unused)	2 bars 120.0 BPM (unused)
A18	A19	A20	A21
2 bars 120.0 BPM (unused)	2 bars 120.0 BPM (unused)	2 bars 120.0 BPM (unused)	2 bars 120.0 BPM (unused)
A22	A23	A24	A25
2 bars 120.0 BPM (unused)	2 bars 120.0 BPM (unused)	2 bars 120.0 BPM (unused)	2 bars 120.0 BPM (unused)

PERFORMANCE CONTROLS

NEXT BAR SUDEN

CLEAR HOLD

COPY TO SONG

ERASE SONG

PROJECT

SAMPLES

- All Samples
 - Drums
 - Drb01ch
 - Sequences
 - 001: Sequence 01
 - 002: Sequence 02

Drb01S11
Drb01S12
Drb01S13
Drb01S14
Drb01S15
Drb01S16
Drb01S17
Drb01S18
Drb01S19
Drb01S20
Drb01S21
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Triggering Sequences

During playback, select a Sequence to play next simply by hitting the corresponding pad. The number and name of the selected Sequence will be displayed in the timeline in the upper half of the window. Use the controls in the **Pad Bank** Section and **Next Sequence** Section to change or repeat Sequences in real time.

Sequence Playlist

The Sequence Playlist window in Next Sequence Mode shows a list-style overview of *all* used Sequences in your Project:

- The **Sequence** column shows the name of the Song's Sequences.
- The **Length** column shows the bar length of a Sequence.
- The **Tempo** column shows the tempo of a Sequence in beats per minute.

SEQUENCE	LENGTH	TEMPO
1 Sequence 01	2	120
2 Sequence 02	2	120
3 (unused)	2	120
4 (unused)	2	120
5 (unused)	2	120
6 (unused)	2	120
7 (unused)	2	120

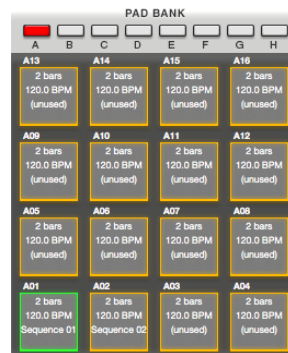
Pad Bank Section

In this section, every pad is assigned to a Sequence, starting from *Pad A01* with *Sequence 1* and ascending from there. Used Sequences are shown with their names; unused Sequences are shown as **(unused)**. The selected pad will be green.

During playback, change the next Sequence by clicking and holding the corresponding pad until the current Sequence ends. If no other Sequence is selected, the software will repeat the current Sequence indefinitely.

Hardware: Every pad is assigned to a Sequence, starting from *Pad A01* with *Sequence 1* and ascending from there. Used Sequences are shown with their names; unused Sequences are shown as **(unused)**. The selected pad will be lit green.

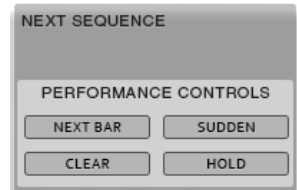
1. Start playback by pressing the **Play** button.
2. During playback, change the next Sequence by hitting the corresponding pad until the current Sequence ends. The pad that will play next will flash green.
3. If no other Sequence is selected, the software will repeat the current Sequence indefinitely.



Next Sequence Section

During the playback of a Sequence, this section gives you the following options:

- Click **Next Bar** to change the Sequence at the beginning of the next bar. This lets you select the next Sequence without having to hit a pad or button in perfect time.
- Click **Sudden** to switch to the next Sequence immediately—before the software has finished playing the current Sequence. This is useful in live performances if you need to switch to the next Sequence instantly at a certain cue.
- Click **Clear** to delete the selected Sequence from the Sequence Playlist.
- Click **Hold** to repeat playback of the current Sequence until you click it again. This is useful for live performances to prolong the playing of a Sequence, for example, to respond to the audience.



Hardware:

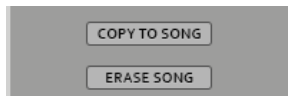
- Press **F4 (Sudden)** to switch to the next Sequence immediately—before the software has finished playing the current Sequence. This is useful in live performances if you need to switch to the next Sequence instantly at a certain cue.
- Press **F5 (Hold)** to repeat playback of the current Sequence until you click it again. This is useful for live performances to prolong the playing of a Sequence, for example, to respond to the audience.
- Press **F6 (Clear)** to delete the selected Sequence from the Sequence playlist.
- Press **F3 (Next Bar)** to change the Sequence at the beginning of the next bar. This lets you select the next Sequence without having to hit a pad or button in perfect time.

Now: 000 : 00 : 000 Seq: 000			
<unused>	<unused>	<unused>	<unused>
Drums Only	Jan Pedder	<unused>	<unused>
ALT Song 1	ALT Song 2	Additions	Scratches
Basic Song	Breaks	Interlude	Intro
To Song	Next Bar	Sudden	Hold
		Clear	

*The **Next Sequence** section in the display of the MPC hardware*

When playback is stopped, this section gives you the following options:

- **Copy to Song** opens a drop-down menu to select a Song the Sequence playlist is copied to. To read more about Song Mode, please see the ***Song Mode*** chapter.
- **Erase Song** erases the active Sequence Playlist.



Hardware: Press **F1 (To Song)** to copy your changes directly into a Song. In the **Copy to Song** window that appears, use the **Data Dial** or **-/+** buttons to select the Song number where you want to copy your changes.

Project Information Section

This section is identical to the Project Information Section in Main Mode. For more information, please see the ***Project Information Section*** part of the ***Main Mode*** chapter.

Sample Record Mode



Sample Record Mode lets you record audio samples to use in your Tracks and Sequences. This mode is divided in two main parts:

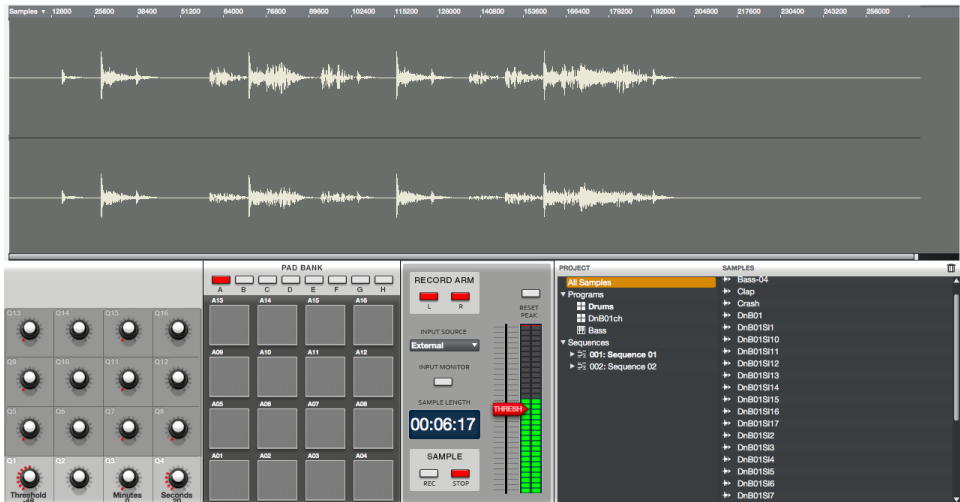
- the **Waveform Display** (which shows the waveform of a sample after the recording process)
- the **Record Control** section (which includes the controls).

Important: To record audio, you need to connect an audio source to your MPC Renaissance or to your computer's audio interface.

MPC Studio users: This section describes recording using MPC Renaissance as your sound card. MPC Studio cannot be used in this way, but you can use a separate audio interface connected to your computer to record audio.

In the software, click the **Sample Record** tab in the Mode Tab Section.

Hardware: To enter Sample Record Mode, press **Shift + Sample Edit / Sample Rec.**



Setting Up to Record with MPC Renaissance

The following example describes the the sample recording procedure using the MPC Renaissance hardware.

Hardware:

1. Make sure to reduce the volume levels of your audio source and speakers/headphones/monitors before you make any connections to avoid "pops" or feedback.
2. Connect your audio source (e.g., a microphone, instrument, etc.) to the **Mic In** jacks of your MPC Renaissance. If a connected microphone requires phantom power, make sure the **Phantom Power** switch is set to *On*. Turn phantom power off when you are not recording. Alternatively, connect a turntable or CD player to the **Phono In** jacks.
3. Set the **Mic / Line** switch on the rear panel as well as the **Mic In / Phono In** switch on the top panel to match your source. Incorrect settings can produce unwanted distortion.
4. Set the **Rec Gain** knob to an appropriate input level.
5. Use the **Cursor Buttons** to navigate to the record control parameters, described in detail below.



*The **Sample Record** section in the display of the MPC hardware*

Waveform Display

The Waveform Display shows the entire waveform of your recorded sample with a timeline at the top. While this is just for reference during in Sample Record Mode, it is the focus of Sample Edit Mode. Please see the **Sample Edit Mode** section to learn about editing your recorded samples.



Record Control Section

The **Record Control** section offers all the relevant controls for recording.

Threshold

In Record Mode, the software automatically starts recording when the level of the incoming source exceeds the Threshold (**Thresh**). If you set the threshold too high, the recording may not start when you play the input source, or the start of the material you wanted to record may be missing. If you set the threshold too low, the recording may start too early, before you play the external source. Set this parameter to an appropriate level using the level meter.

Use **Q-Link Knobs Q3** and **Q4** to define the maximum sampling time. You can record up to 20 minutes and 59 seconds. We recommend setting these to values that roughly match your estimated recording duration.

Hardware: To adjust the **Threshold**, use **Q-Link Knob Q1**. Use **Q-Link Knobs Q3** and **Q4** to set the record time in **Minutes** and **Seconds**.

Click the **Reset Peak** button to reset the "peak hold", which shows the highest level of your input signal as a red bar within the level meter.

Hardware: To reset the peak hold, press **F1** or **F2 (Reset Peak)**. The peak hold is shown as a vertical bar within the **Level Meter**.



Record Arm Channels

Use the **Record Arm** buttons to define which side of the incoming audio signal is going to be recorded. You can select **L** for the left channel, **R** for the right channel or both buttons for stereo recording.

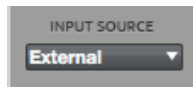


Hardware: To select the input channel(s), use the **Cursor Buttons** to select the **Mode** field and use the **Data Dial** or **-/+** buttons to select *Stereo*, *Left*, or *Right*.

Tip: Deselect the right channel when you are recording to one channel only.

Input Source

The **Input Source** parameter defines whether you are going to record an external audio signal (*External*) an internal signal from the software (*Resample*). A Resample recording does not require an audio connection because the source is within the software and is therefore recorded without any loss in audio quality. You can, for example, use Resample to record two or more samples by hitting the corresponding pads simultaneously.



Hardware: To select the sample input, use the **Cursor Buttons** to select the **Input** field and use the **Data Dial** or **-/+** buttons to select *External* or *Resample*.

Input Monitor

When input monitoring is on, the audio you hear in your headphones will be taken *before* it reaches the software, ensuring zero latency. When input monitoring is off, the audio you hear in your headphones will be taken *after* it is processed in the software, so there may be some latency, but you will hear the audio source as it sounds in the recording.



Click the **Input Monitor** button to control the incoming audio source through your audio system.

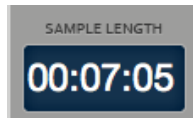
Hardware: To activate the Input Monitor function, use the **Cursor Buttons** to select the **Monitor** field and use the **Data Dial** or **-/+** buttons to switch it to *On*.

Important: Make sure the Direct Monitoring, Input Monitoring, etc. control of your audio interface or MPC Renaissance is set appropriately so you can hear the incoming signal rather than just the signal from your computer.

Tip: To avoid possible clicks or feedback when using input monitoring, reduce the level of the audio sources.

Sample Length

For reference, the **Sample Length** display shows you the length of your sample during the recording procedure.



Sample Rec and Stop

Click **Sample Rec** to record-arm the software, or click **Sample Stop** to stop the recording process.

After clicking **Sample Rec**, the recording will start once the incoming audio level exceeds the **Threshold** parameter.

If you do not click **Stop**, recording will continue to the end of the previously set sample length.

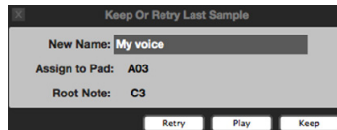


Hardware:

1. To start recording, press **F6 (Record)**.
2. After that, the recording will start once the incoming audio level exceeds the **Threshold** parameter.
3. If recording has not begun yet, you can cancel the procedure by pressing **F5 (Cancel)** or start the recording immediately by pressing **F6 (Start)**.
4. To stop recording, press **F6**.

When the recording is finished, a small window appears:

- If you want to keep the recorded sample, enter a name in the **New Name** field.
- Click and drag the **Assign to Pad** field to select a pad to assign the sample to.
- Click and drag the **Root Note** field to set where the sample's original pitch will be on the keyboard.
- To save the sample, click **Keep**. To delete the recording and try again, click **Retry**. To listen to the sample before deciding, click **Play**.



Hardware: When the recording is finished, the MPC hardware's display will show new options. Use the **Cursor Buttons** to select a field, and use the **Data Dial** or **-/+** buttons to change the setting:

- **Assign to Pad:** Select a pad to assign the sample to. Alternatively, you can simply hit the pad.
- **Root Note:** Sets where the sample's original pitch will be on the keyboard.

To save the sample, press **F5 (Keep)**. To delete the recording and try again, press **F2 (Retry)**. To listen to the sample before deciding, press **F4 (Play)**.

Tip: We recommend editing your recorded sample in **Sample Edit Mode**.

Project Information Section

This section is identical to the Project Information Section in Main Mode. For more information, please see the ***Project Information Section*** part of the ***Main Mode*** chapter.

Newly recorded samples will be shown in the **Sample** area of **Project Information**. To use them in your production, you must load them into Programs first.

Sample Edit Mode



Sample Edit Mode lets you edit samples using various functions.

In the software, click the **Sample Edit** tab in the Mode Tab Section.

To select a sample to edit, click the **Edit Sample** drop-down menu in the left section below the waveform display and select a sample from the Project.

Alternatively, you can click and drag a sample from the **Project Information** section onto the Waveform Display. You can also right-click a sample in the **Project Information** section and select *Edit*. (You can select a sample this way in any mode that shows the **Project Information** section. When selecting a sample for editing, the mode will change automatically to Sample Edit Mode.)

Hardware: To enter Sample Edit Mode, press the **Sample Edit** button. Use the **Data Dial** or the **-/+** buttons to select a sample for editing. The selected sample is displayed at the top of the display.

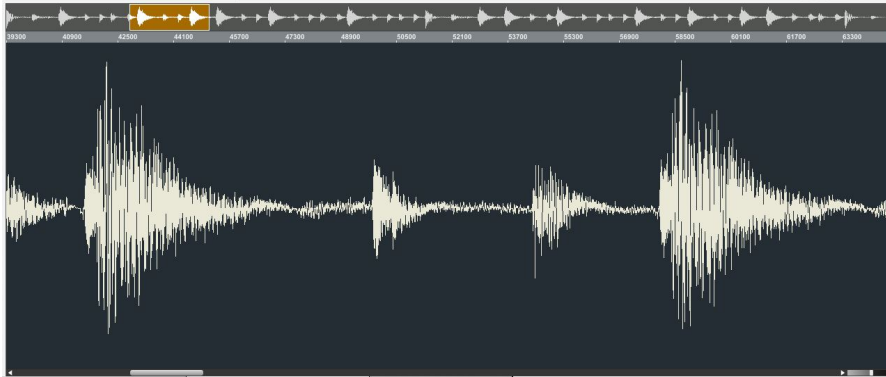
The upper half of the window is the Waveform Display. The lower half contains the editing controls.

Sample Edit Mode can work in one of two ways: **Trim Mode** or **Chop Mode**. Most of this chapter describes Trim Mode functions. Please refer to the **Chop Mode** part of the chapter to see how it differs.



The Sample Edit window

Waveform Display



The Waveform Display is divided into two sections:

- The top of the display shows an overview of the entire sample waveform. A shaded rectangle outlines the currently shown part of the sample.
- The main part of the display shows the "active" section of the sample waveform. Use the scroll bar under the waveform to move through it.

To move the view, click and drag the shaded rectangle in the overview.

To zoom in, double-click the shaded rectangle in the overview. Alternatively, you can use the slider in the lower-right corner of the Waveform Display.

To zoom out, press and hold **Control** (Windows) or **Command** (Mac OS X) and double-click the shaded rectangle in the overview. Alternatively, you can use the slider in the lower-right corner of the Waveform Display.

Hardware: To zoom in and out of the waveform, do one of the following:

- Press and hold **Shift** and use the left and right **Cursor Buttons**.
- Use **Q-Link Knob Q4**.

Use **Q-Link Knob Q8** to move the audio pointer through the sample.

In the main Waveform Display, a start point and end point are marked by green lines. These two points define the portion of the sample data which will be played.

Click and drag either of these lines to move it. The most recently moved line will be red instead of green.

Tip: A recorded sample may have some silence at the beginning or end, which makes it difficult to time it correctly in a musical context. Fix this by adjusting the start point. You can also adjust end point to remove any extra silence or unwanted audio at the end. In addition to making your workflow easier, having a "tight," well-edited sample can enhance your production or performance.

Edit Section

This section contains controls to edit samples and to select between **Chop Mode** or **Trim Mode**. Most of this chapter describes Trim Mode functions. Please refer to the **Chop Mode** part of this chapter to see how it differs.

Hardware: Use the **Data Dial** or the **-/+** buttons to select a sample for editing. The selected sample name is shown at the top of your display.

In the software, click the **Edit Sample** drop-down menu and select the desired sample.

The **Q-Link Knobs** can be used for various editing and viewing functions:

- To zoom in or out of the sample, use **Q-Link Knob Q4**.
- To move the audio pointer through the sample, use **Q-Link Knob Q8**.
- To adjust the start point of the sample, use **Q-Link Knobs Q13, Q9, Q5, or Q1**. The smaller the Q-Link Knob number, the more precise the adjustment of the start point.
- To adjust the end point of the sample, use **Q-Link Knobs Q14, Q10, Q6, or Q2**. The smaller the Q-Link Knob number, the more precise the adjustment of the end point.
- To adjust the loop point of the sample, use **Q-Link Knobs Q15, Q11, Q7, or Q3**. The smaller the Q-Link Knob number, the more precise the adjustment of the loop point.
- Alternatively, you can adjust the start point, loop point, or end point by clicking the corresponding small arrows below the sample timeline and moving them with your mouse.



Hardware:

- To adjust the start point of the sample, use **Q-Link Knobs Q13, Q9, Q5, or Q1**. The smaller the Q-Link Knob number, the more precise the adjustment of the start point.
- To adjust the end point of the sample, use **Q-Link Knobs Q14, Q10, Q6, or Q2**. The smaller the Q-Link Knob number, the more precise the adjustment of the end point.
- To adjust the loop point of the sample, use **Q-Link Knobs Q15, Q11, Q7, or Q3**. The smaller the Q-Link Knob number, the more precise the adjustment of the loop point.

Tips:

- Remember that the loop start point cannot be placed before the start point of a sample.
- Click the waveform and hold the mouse button to play the edited sample.

Right-click in the sample timeline to switch between **Time** (in seconds and milliseconds) and **Samples**.

Pad Section

You can use the pads to play certain parts of the selected sample, regardless of the selected Pad Bank.

Trigger the following playback options by hitting the corresponding pad:

- **Play Loop (Pad 13)** plays the sample repeatedly from the loop point to the end point.
- **Play Sample (Pad 15)** will play the whole sample as it has been edited. You can also click the Waveform Display to activate this function.
- **Play All (Pad 16)** plays the whole sample regardless of any edits.
- **Play to Start (Pad 10)** plays the sample portion before the start point. If the start point is set to 0, nothing will be played.
- **Play From Start (Pad 11)** plays the sample from the start point to the end of the sample regardless of the end point. If the start point is identical to the end point, nothing will be played.
- **Play To Loop Start (Pad 06)** plays the sample portion before the loop point.
- **Play From Loop Start (Pad 07)** plays the sample from the loop start point to the end of the sample regardless of the end point. If the loop start point is identical to the end point, nothing will be played.
- **Play To End (Pad 02)** plays the sample portion from the start point to the end point.
- **Play From End (Pad 03)** plays the sample part from the end point to the end of the sample. If the end point is identical to the end of the sample, nothing will be played.



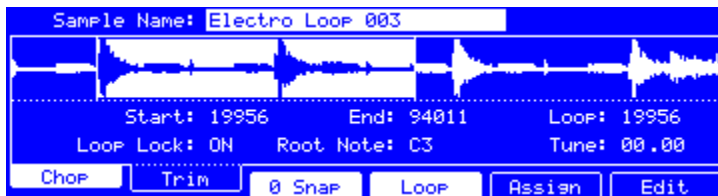
Settings Section

This section lets you edit various parameters affecting playback and loop functions.

In the software, edit the start point (**Start**), end point (**End**), or loop point (**Loop Start**) by double-clicking the number in the field, and use your computer keyboard to enter a value.



Hardware: Edit the start point (**Start**), end point (**End**), or loop point (**Loop**) by using the **Cursor Buttons** to select the field and then using the **Data Dial** or the **-/+** buttons to select a value. Alternatively, you can enter a value by using the number buttons and confirming by pressing **Enter**.



*The **Sample Edit** section in the display of the MPC hardware*

In the software, you can activate the loop and samples options by clicking the corresponding button:

- **Loop** activates the loop function, which will repeat the part of the sample between the loop point and the end point.
- **Snap to Zero** activates the snap-to-zero function. For easier sample editing, the software will "force" you to place a start point or end point only at "zero-crossings." This can help to avoid clicks and glitches when playing a sample.
- **Tune** lets you transpose the sample based on its original pitch. The value range is two octaves, up or down, in semitone steps.
- **Root Note** lets you select a root note for the sample. The root note defines which note will play the sample at its original pitch when in a Keygroup Program.
- **Loop Lock** activates the Loop Lock option. The adjusting of the sample start point and the start point can be linked, allowing simultaneous adjustments (e.g., when you need to find a loop with a defined length).

Hardware:

- Press **F4 (Loop)** to activate the loop function, which will repeat the part of the sample between the loop point and the end point.
- Press **F3 (0 Snap)** to activate the snap-to-zero function. For easier sample editing, the software will "force" you to place a start point or end point only at "zero-crossings." This can help to avoid clicks and glitches when playing a sample.
- Use the **Cursor Buttons** to select any of the following fields and use the **Data Dial** or the **-/+** buttons to change the setting:

Tune lets you transpose the sample based on its original pitch. The value range is two octaves, up or down, in semitone steps.

Root Note lets you select a root note for the sample. The root note defines which note will play the sample at its original pitch when in a Keygroup Program.

Loop Lock activates the Loop Lock option. The adjusting of the sample start point and the start point can be linked, allowing simultaneous adjustments (e.g., when you need to find a loop with a defined length).

Process Section

The Process section gives you various editing options for the selected sample.

In the software, click the desired sample editing option (described below). A new window will open (which may have some additional parameters). To execute a selected option, click **Do It**, or cancel your changes by clicking **Cancel**.

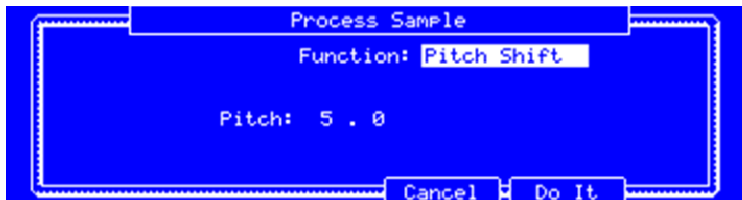
Tips:

- When the new window is open, you can click the **Function** field to select another edit option, if desired.
- All **Start/End** processes will only affect the part of the sample between the start point and the end point. **Bit Reduce** and **Stereo > Mono** will affect the *entire* sample regardless of its start point or end point.



Hardware:

1. Press **F6 (Edit)** to open the **Process Sample** page.
2. Use the **Data Dial** or the **-/+** buttons to select the desired editing option (described below) in the **Function** field. Some options have some additional parameters—use the **Cursor Buttons** to select them and the **Data Dial** or **-/+** buttons to adjust them.
3. To execute a selected option, press **F5 (Do It)**, or cancel your changes by pressing **F4 (Cancel)**.



*The **Process Sample** display for Pitch Shift of the MPC hardware*

The following sample editing options are available:

- **Discard** deletes parts of the sample before the start point and after the end point.
- **Delete** deletes the part of the sample between the start point and end point and closes the gap between them.
- **Silence** replaces the part of the sample between the start point and end point with silence.
- **Extract** deletes parts of the sample before the start point and after the end point and saves it as a new sample (with a name you enter) in your current Project.

Tip: This is useful if you recorded a drum loop and wanted to remove just a snare drum hit, a kick drum hit, etc. to use separately in the Project.

- **Normalize** increases a sample's level to the highest level possible without distortion. This is essentially a kind of digital gain optimization, so you do not have to worry about excessive level settings when working with Projects whose samples have a wide range of amplitudes.
- **Reverse** reverses the part of the sample between the start point and end point.
- **Fade In** sets a fade-in between the start point and end point of the sample. The following types are available:
 - *Linear* fades the audio in with a linear curve—a straight line between the start and end.

- *Log* fades the audio in with a logarithmic curve—quickly rising at the start and flattening out towards the end.
 - *Exp* fades the audio in with an exponential curve—slowly rising in the beginning and growing steeper towards the end.
- **Fade Out** sets a fade-out between the start point and end point of the sample. The following types are available:
 - *Linear* fades the audio out with a linear curve—a straight line between the start and end.
 - *Log* fades the audio out with a logarithmic curve—quickly rising at the start and flattening out towards the end.
 - *Exp* fades the audio out with an exponential curve—slowly rising in the beginning and growing steeper towards the end.
- **Pitch Shift** changes the pitch of the sample without changing its length. This lets you set the sample's pitch to your Sequence without affecting the sample's tempo or duration. You can adjust it up to 12 semitones, up or down. Keep in mind that the audio quality may decrease at more extreme settings.
- **Time Stretch** lengthens or shortens the sample without changing its pitch. This is useful when you want to match the durations of two samples with different pitches. You can enter the original tempo of the sample and the desired tempo after processing.

Tip: To change the sample length in percent, set the original tempo to *100*, and then set the new tempo to the desired percentage (e.g., to lengthen the sample by 20%, set the original tempo to *100* and set the new tempo to *80*).
- **Gain Change** raises or lowers the volume of the sample. You can adjust it up to 18dB, higher or lower. This function is different than Normalize because it will allow volumes beyond clipping level. This may be a desired effect, but remember to watch your output level!
- **Copy** saves a copy of the sample and adds a consecutive number after the sample name.
- **Bit Reduce** lowers the bit resolution of a sample, effectively reducing its degree of faithful reproduction. You can reduce the bit rate down to *1 bit*. (The sound is similar to the Resampler effect, but Bit Reduce will permanently alter the sample.)

Tip: Use this on drum loops to get a dirty, "old-school" sizzle but with a digital "edge."
- **Stereo > Mono** converts a stereo sample to a new mono sample and saves it as a new sample (with a name you enter) in your current Project. The following options are available:
 - *Left* will convert the left channel only.
 - *Right* will convert the right channel only.
 - *Sum* will combine the left and right audio channels to a single mono channel.

Project Information Section

This section is identical to the Project Information Section in Main Mode. For more information, please see the **Project Information Section** part of the **Main Mode** chapter.

Newly recorded samples will be shown in the **Sample** area of **Project Information**. To use them in your production, you must load them into Programs first.

Chop Mode

This section describes several functions unique to Chop Mode, in contrast to Trim Mode.

In Chop Mode, the sample will be divided into multiple regions called **slices**. There are three different ways to use this function:

- **Region** divides a sample into several regions of equal length.
- **BPM** divides a sample into several regions based on the tempo (beats per minute).
- **Threshold** uses an adjustable detection algorithm that derives the number of regions created from the volume levels present in the sample.



Edit Section in Chop Mode

In the software:

- Use **Q-Link Knobs Q13, Q9, Q5, or Q1** to adjust the start point of the sample. The smaller the Q-Link Knob number, the more precise the adjusting of the start point.
- Use **Q-Link Knobs Q14, Q10, Q6, or Q2** to adjust the end point of the sample. The smaller the Q-Link Knob number, the more precise the adjustment of the end point.
- Use **Q-Link Knob Q15** to select a slice for editing.
- Use **Q-Link Knob Q11** to set the threshold for slice detection (in Threshold Mode), the number of regions (in Region Mode), or the numbers of bars (in BPM Mode).
- Use **Q-Link Knob Q8** to set the number of beats in BPM Mode. (This Q-Link Knob has no function in Threshold Mode or Region Mode.)
- Use **Q-Link Knob Q4** to set the time signature in BPM Mode. (This Q-Link Knob has no function in Threshold Mode or Region Mode.)



Hardware: Press **F1 (Chop)** to enter Chop Mode.

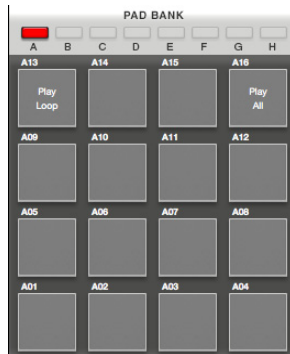
- Use **Q-Link Knobs Q13, Q9, Q5, or Q1** to adjust the start point of the sample. The smaller the Q-Link Knob number, the more precise the adjustment of the start point.
- Use **Q-Link Knobs Q14, Q10, Q6, or Q2** to adjust the end point of the sample. The smaller the Q-Link Knob number, the more precise the adjustment of the end point.
- Use **Q-Link Knob Q15** to select a slice for editing.
- Use **Q-Link Knob Q11** to set the threshold for slice detection (in Threshold Mode), the number of regions (in Region Mode), or the number of bars (in BPM Mode).
- Use **Q-Link Knob Q8** to define the numbers of beats in BPM Mode. (This Q-Link Knob has no function in Threshold Mode or Region Mode.)
- Use **Q-Link Knob Q4** to set the time signature in BPM Mode. (This Q-Link Knob has no function in Threshold Mode or Region Mode.)

Note: Depending on the Chop Mode (**Threshold**, **Regions**, or **BPM**), the Q-Link Knob section offers different parameters for editing for the **Q-Link Knobs Q12, Q8, and Q4**.

Pad Section in Chop Mode

In Chop Mode you can use the pads to play the sample in the following ways:

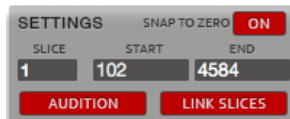
- **Play Loop (Pad 13)** plays the sample from the loop point to the end point repeatedly.
- **Play All (Pad 16)** plays the whole sample regardless of any editings.
- When **Audition** in the **Settings** section is activated, the pads can be used to play the created slices. Read more about this in the following **Settings in Chop Mode** part of this chapter.



Settings in Chop Mode

In the software, this section lets you edit various parameters affecting the start point and end point of your sample's slices:

- **Slice** is the number of the currently selected slice. Click a slice in the Waveform Display to select it. (Remember that you have to create slices before one can be selected.)
- **Start** defines the start point of the current slice. Click and drag the slice marker in the Waveform Display left or right to change it. Alternatively, double-click somewhere in the Waveform Display to create a start point there. Remember that the start point of a slice is also the end point of the previous slice.
- **End** defines the end point of the current slice. Click and drag the slice marker in the Waveform Display left or right to change it. Alternatively, double-click somewhere in the Waveform Display to create an end point there. Remember that the end point of a slice is also the start point of the next slice.
- **Snap to Zero** activates the snap-to-zero function. For easier sample editing, the software will "force" you to place a start point or end point only at "zero-crossings." This can help to avoid clicks and glitches when playing a sample.



- When **Audition** is activated, you can use the pads can to play the different slices. Each slice is assigned to a pad automatically, starting from *Pad A01* with *Slice 1* and ascending from there. If your sample contains more than 16 slices, use the **Bank** buttons to switch through the pad banks to view all playable slices. Playing a slice will also select it.
- With **Link Slices** activated, changing the start point of a slice will also change the end points of the previous slice. Similarly, changing the end point of a slice will also change the start point of the next slice. Turn **Link Slices** off if you are trying to create slices that use non-contiguous parts of the sample.

Hardware:

- Use the **Cursor Buttons** to select a field (**Slice**, **Link**, **Start**, and **End**). Use the **Data Dial** or the **-/+** buttons to change the value.
- Press **F4 (Audition)** to activate Audition.



*The **Chop Mode** display of the Sample edit section in the MPC hardware*

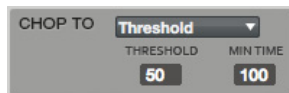
Chop To Section in Chop Mode

This section determines the slicing process. You can select between three slicing modes:

- **Threshold** uses an adjustable detection algorithm that derives the number of regions created from the volume levels present in the sample.

Click and drag the **Threshold** field up or down to set the threshold level. The higher the selected value, the more slices will be created.

Click and drag the **Min Time** (Min Slice Time) field up or down to set the minimum length of a slice in milliseconds.



- **Regions** divides a sample into several regions of equal length. Click and drag the **Num Regions** field up or down to set the number of regions you wish to divide the sample into. Usually, 16 is a good start for a single-measure loop.

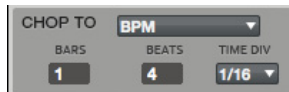


- **BPM** divides a sample into several regions of equal length based on its length and the current tempo (beats per minute).

Click and drag the **Bars** field up or down to set how many bars are in the sample.

Click and drag the **Beat** field up or down to set how many beats are in each bar.

Click and drag the **Time Div** field up or down to set a note division; the slice markers will be placed according to this setting. You can select 1/4, 1/8, 1/16, or 1/32. (In most cases, you should set this parameter to 1/16.)



Hardware:

1. Use the **Cursor Buttons** to select the **Chop To** field.
2. Use the **Data Dial** or the **-/+** buttons to set the mode (*Threshold*, *Region*, or *BPM*).
3. Use the **Cursor Buttons** to select the parameters for that mode, and use the **Data Dial** or the **-/+** buttons to change the value.

Process Section in Chop Mode

This section gives you various editing options for the selected sample.

In the software, click the desired sample editing option (described below). A new window will open (which may have some additional parameters). To execute a selected option, click **Do It**, or cancel your changes by clicking **Cancel**.

Tip: When the new window is open, you can click the **Function** field to select another edit option, if desired.



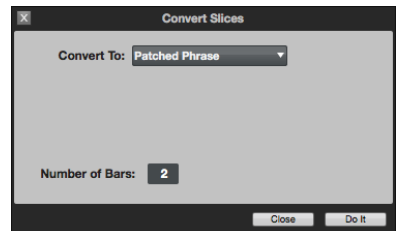
Hardware:

1. Press **F6 (Edit)** to open the **Process Sample** page.
2. Use the **Data Dial** or the **-/+** buttons to select the desired editing option (described below) in the **Function** field. Some options have some additional parameters—use the **Cursor Buttons** to select them and the **Data Dial** or **-/+** buttons to adjust them.
3. To execute a selected option, press **F5 (Do It)**, or cancel your changes by pressing **F4 (Cancel)**.

This section contains most of the same functions as it does in Trim Mode: **Silence**, **Extract**, **Normalize**, **Reverse**, **Fade In**, **Fade Out**, **Pitch Shift**, and **Gain Change**. See the **Process Section** earlier in this chapter for more information about these functions.

The difference is an additional option which affects the whole sample regardless of the selected slice. **Convert** offers three ways of exporting the sliced sample:

- **Patched Phrase** creates a new sample based on your edits and places it in the current Project.



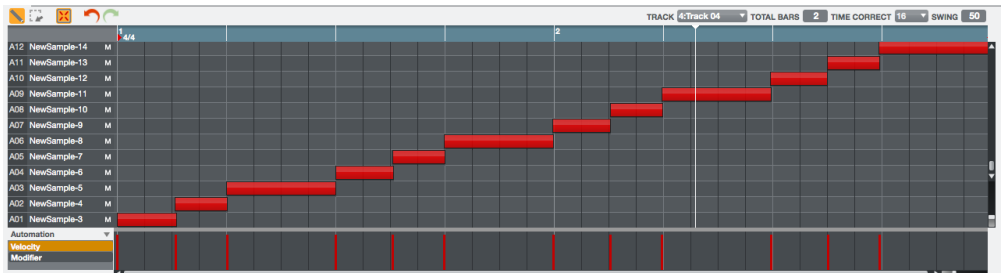
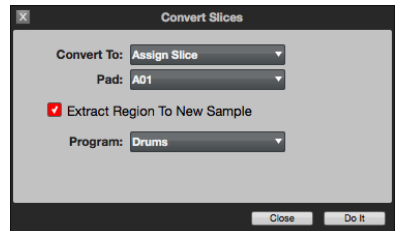
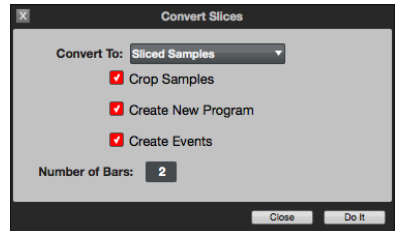
- **Sliced Samples** creates individual samples from the slices of the current sample.

If **Crop Samples** is activated, each slice results in a new sample.

If **Create New Program** is activated, you will create a new Program in which each slice results in a sample and is automatically assigned to a pad. (If **Create New Program** is selected, you also get the option to **Create Events**.)

If **Create Events** is activated (available only when **Create New Program** is activated), you will create a new Program in which each slice results in a sample and is automatically assigned to a pad. Furthermore, it will automatically create a new Track in which each pad plays its corresponding slice in ascending sequence by pad number. The samples will be named with **sl** and a consecutive number attached to their original name.

- **Assign Slice** assigns a single slice to a selected pad. Click **Pad** and select the desired pad. If **Extract Region To New Sample** is activated, the slice is also extracted as a new sample. Click **Program** to specify a Program to which you want to add the assigned slice. The sample will be named with **pp** attached to its original name.



*Track with events after using the **Sliced Sample/Create Events** function*

Project Information in Chop Mode

This section is identical to the Project Information in Trim Mode.

Song Mode



Song Mode lets you arrange Sequences in a specific order and/or repetition to create songs. You can edit the structure of a Song during playback for easy, on-the-fly composing.

A Project can contain up to 32 Songs, each consisting of up to 999 "steps," each of which can have an assigned Sequence as well as the number of times that Sequence will repeat.

In the software, click the **Song** tab in the Mode Tab Section.

Hardware: To enter Song Mode, press the **Song** button.

Sequence Playlist Section

The Sequence Playlist Section (to the left of the pads in the software) is the list of the steps of a Sequence.

Each step in a Song has:

- an assigned Sequence
- the tempo of the Sequence
- the number of bars in the Sequence
- how many times the Sequence plays

STEP	SEQUENCE	RPTS	BPM	BARS
1	1: Sequence 01 ▾	1	120.0	2
2	2: Sequence 02 ▾	1	120.0	2
3	1: Sequence 01 ▾	2	120.0	2
4	2: Sequence 02 ▾	2	120.0	2
(end of song)				

You can add a Sequence to the Sequence Playlist by clicking and dragging from a pad and dropping it onto the list. You can also click and drag Sequences from the pads and drop them onto the workspace in the upper half of the window, if you prefer working in a horizontal arrangement.

You can insert Sequences between existing Sequences, or you can replace Sequences by dragging a Sequence directly over another.

The **Step** column indicates which "step" of the Song it is. Each Song can contain up to 999 steps.

The **Sequence** column shows the name of the Song's Sequences. Click a Sequence to open a drop-down menu where you can exchange the Sequence with another one.

The Repeats (**Rpts**) column lets you define how often a Sequence is going to be repeated. Normally, a Sequence is played only once, but you can expand it to four repeats, for example. Up to 999 repeats are possible. The **Bar** column will automatically be updated once you make changes for a Sequence in the **Rpts** column. If set to **Hld** (Hold), a Sequence will go on playing until you activate on the **Stop** button.

The **BPM** column shows the tempo of a Sequence in beats per minute.

The **Bars** column shows the bar length of a Sequence.

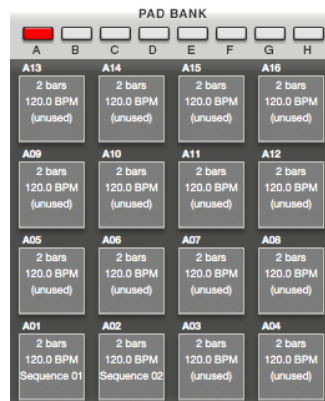
Hardware: Use the **Cursor Buttons** to navigate the Sequence playlist. Use the **Data Dial** or the **-/+** buttons to change the setting or value of the selected field.

Pad Bank Section

In this section, all Sequences are assigned to a pad. Unused empty Sequences are marked **(unused)**. You can use the Pad Bank buttons to show the Sequences assigned to pads in other banks.

You can easily click and drag Sequences from this section and drop them onto the Sequence playlist. You can also click and drag Sequences from the pads and drop them onto the workspace in the upper half of the window, if you prefer working in a horizontal arrangement.

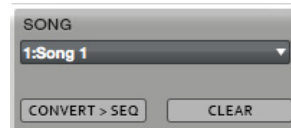
You can insert Sequences between existing Sequences, or you can replace Sequences by dragging a Sequence directly over another.



Song Section

This section lets you name or select a Song or execute other operations that affect the Song.

Click the **Song** drop-down menu to name the Song.



You can also click the downward arrow (▼) to the right of the Song name to open a drop-down menu where you can select another of the 32 Songs in the Project.

Click **Convert > Seq** to convert the current Song to a single Sequence.

Hardware: Press **F4 (Convert)** to convert the current Song into a single Sequence.

Click **Clear** to delete *all* Sequences of the Song.

Hardware: Press **F1 (Clear)** to delete *all* Sequences of the Song.

Edit Step

This section contains controls to add or delete steps from the Song.

Click **Insert Step** to insert the selected Sequence (indicated by the lit pad in the Pad Bank section) in the Sequence Playlist.



Hardware: Press **F6 (Insert)** to insert a Sequence *under* the selected one.

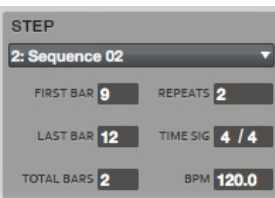
Click **Delete Step** to delete the selected step from the Sequence Playlist.

Hardware: Press **F5 (Delete)** to delete the selected Sequence.

Step Section

This section contains information about the current step in the Sequence Playlist.

- **First Bar** indicates where in the Song the step begins.
- **Last Bar** indicates where in the Song the step ends before moving onto the next step.
- **Total Bars** indicates how many bars the step occupies in the Song (this accounts for how many times the step's Sequence repeats).
- **Repeats** indicates how many times the step's Sequence plays.
- **Time Sig** indicates the Sequence's time signature.
- **BPM** indicates the Sequence's tempo in beats per minute.



Hardware: When a Song is playing, the following buttons are available in the MPC hardware's display:

- **Sudden** switches to the next Sequence before the software has finished playing back the current Sequence. This is useful in live performances, if you need to switch to the next Sequence at a certain cue.
- **Next** jumps to the next Sequence at the end of the current Sequence. These buttons can be also used in conjunction with **Hold** to get the MPC out of a **Hold** Sequence.

Tip: To learn more about creating Songs, please see the **Creating a Song** section of the **Quick Start / Tutorial** chapter.

Project Information Section

This section is identical to the Project Information Section in Main Mode. For more information, please see the ***Project Information Section*** part of the ***Main Mode*** chapter.

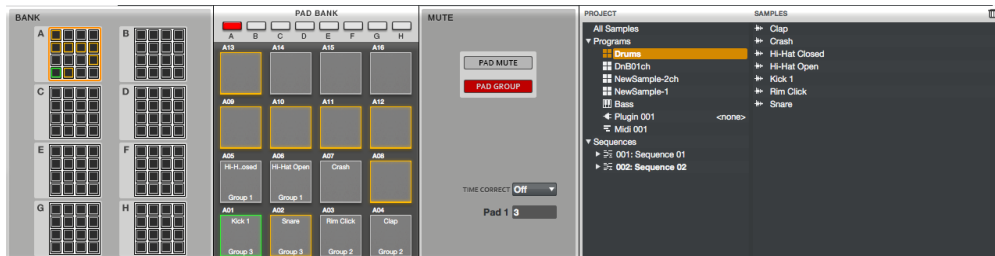
Pad Mute Mode



Pad Mute Mode lets you easily mute pads within a Program or set Mute Groups for each pad.

In the software, click the **Pad Mute** tab in the Mode Tab Section.

Hardware: To enter Pad Mute Mode, press **Shift + Track Mute / Pad Mute**.



Pad Mute

You can mute or unmute individual sounds (on a single Track) in real time by hitting the pads. This is useful if you want to hear a Track without a particular sound or if you want to isolate specific sounds or combinations of sounds.

Tip: This function is similar to, but probably more convenient than, muting pads one at a time in the grid.

In the software, do the following to use Pad Mute:

1. Click the **Pad Mute** button in the **Mute** Section to activate it.
2. Click the desired bank (A – H) in the **Bank** section or **Pad Bank** section.
3. Click a pad in the **Pad Bank** section to mute or unmute its assigned sound. Muted pads are lit red; unmuted pads are lit yellow.

Alternatively, you can click the the miniature pads in **Bank** section. This section gives you an overview of all 128 pads at the same time. Unused pads are grayed out.

Hardware:

1. Press **F1 (PadMute)** to activate Pad Mute.
2. The 16 blocks in the display represent the 16 pads of the current bank. Hit a pad to mute or unmute its assigned sound. Use the **Pad Bank** buttons to switch between the 16 banks, if necessary.

Muted pads are lit red; unmuted pads are lit yellow. Unused pads do not show a sample name.

Now: 000 : 00 : 000		Drums	
Sinus .ker 130	Static.arm 130	Steam .tor 140	Roushshod 126
Kaata . 87.07	Junked. 129.29	Mosh Pit 140	Movins.End 119
Bell Code	Carzil.tch 120	Angry .en2 130	Night . 01 140
Drus Dealer 96	Ex Wammer 88	Fatal .ck3 135	Calm Down 135
PadMute	PadGroup	Time Div	T.C.

*The **Pad Mute** section in the display of the MPC hardware*

Time Correct lets you quantize Pad Mutes. This is useful when you want your mutes to line up with a specific time division. Click the **Time Correct** drop-down menu and select a value from *1/16th* (sixteenth notes) to *2 bar* (2 bars). For example, with **Time Correct** set to *1 bar*, your mutes will always align with the beginning of the measure immediately after you press the pad.

Hardware: Press **F4 (Time Div)** and use the **Data Dial** or **-/+** buttons to edit the **Time Correct** value. Press **F5 (T.C.)** to activate or deactivate Time Correct.

Pad Group

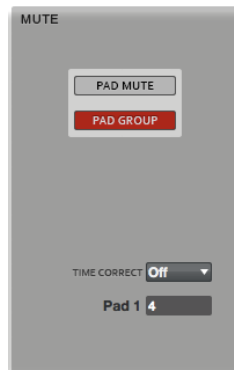
The Pad Group feature extends the concept of Pad Mutes: you can mute or unmute multiple pads (on a single Track) by hitting one pad that you have assigned to a Mute Group. This is useful if you want to hear a Track without a particular group of sounds or if you want to isolate specific sounds in various combinations. You can create up to 16 different Pad Groups.

In the software, do the following to use Pad Groups:

1. Click the **Pad Group** button in the **Mute** Section to activate it.
2. Click the desired bank (A – H) in the **Bank** section or **Pad Bank** section.
3. Click a pad in the **Pad Bank** section that you want to assign to a Mute Group.

Alternatively, you can click the the miniature pads in **Bank** section. This section gives you an overview of all 128 pads at the same time. Unused pads are grayed out.

4. Click and drag the **Pad** __ field in the **Mute** Section up or down to select the desired Mute Group number.



When a pad in a Mute Group is selected, the other pads in that same Mute Group will blink yellow.

Hardware:

1. Press **F2 (PadGroup)** to activate Pad Group.
2. Hit a pad to select it. Use the **Pad Bank** buttons to switch between the 16 banks, if necessary.
3. Use the **Data Dial** or **-/+** buttons to select the desired Mute Group number.

When a pad in a Mute Group is selected, the other pads in that same Mute Group will blink yellow.

Time Correct lets you quantize Pad Mutes. This is useful when you want your mutes to line up with a specific time division. Click the **Time Correct** drop-down menu and select a value from *1/16th* (sixteenth notes) to *2 bar* (2 bars). For example, with **Time Correct** set to *1 bar*, your mutes will always align with the beginning of the measure immediately after you press the pad.

Hardware: Press **F4 (Time Div)** and use the **Data Dial** or **-/+** buttons to edit the **Time Correct** value. Press **F5 (T.C.)** to activate or deactivate Time Correct.

Project Information Section

This section is identical to the Project Information Section in Main Mode. For more information, please see the ***Project Information Section*** part of the ***Main Mode*** chapter.

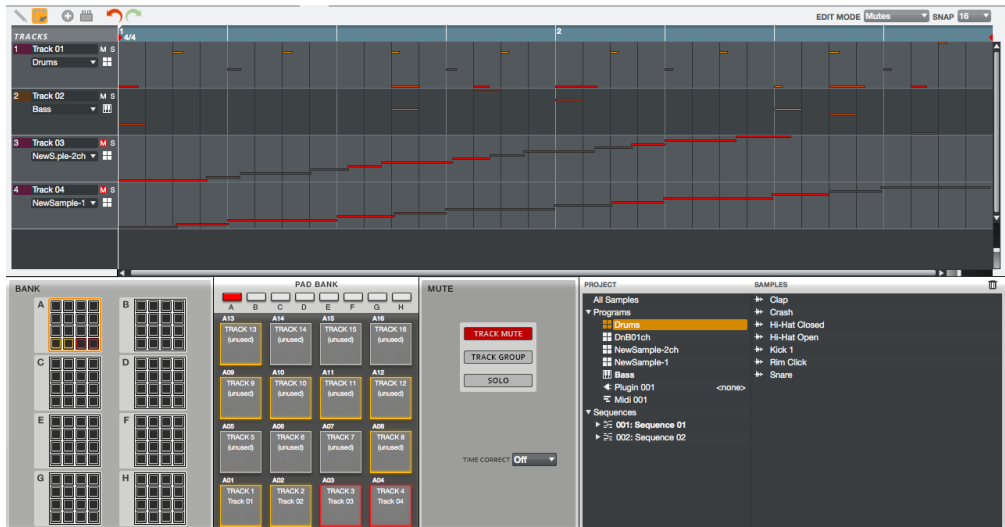
Track Mute Mode



Track Mute Mode lets you easily mute Tracks within a Sequence or set Track Mute Groups to use with the pads.

In the software, click the **Track Mute** tab in the Mode Tab Section.

Hardware: To enter Track Mute Mode, press the **Track Mute** button.



Track Mute Mode

You can mute or unmute individual Tracks in real time by hitting the pads. This is useful if you want to hear a Sequence without a particular Track (e.g., muting your keyboard track to focus on the bass) or if you want to isolate specific sounds or combinations of sounds that are separated by Track.

Tip: This function is similar to, but more convenient than, muting Tracks one at a time in Track Mixer Mode.

In the software, do the following to use Track Mute:

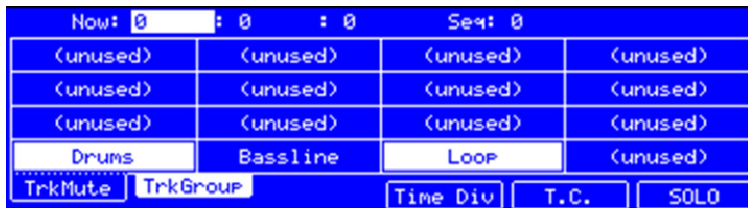
1. Click the **Track Mute** button in the **Mute** Section to activate it.
2. Click the desired bank (A – H) in the **Bank** section or **Pad Bank** section.
3. Click a pad in the **Pad Bank** section to mute or unmute its corresponding Track. Muted pads are lit red; unmuted pads are lit yellow.

Alternatively, you can click the the miniature pads in **Bank** section. This section gives you an overview of all 128 pads at the same time. Unused pads are grayed out.

Hardware:

1. Press **F1 (TrkMute)** to activate Track Mute.
2. The 16 blocks in the display represent the 16 pads of the current bank. Hit a pad to mute or unmute its corresponding Track. Use the **Pad Bank** buttons to switch between the 16 banks, if necessary.

Muted pads are lit red; unmuted pads are lit yellow. Unused pads do not show a sample name.



*The **Track Mute** section in the display of the MPC hardware*

Time Correct lets you quantize Track Mutes. This is useful when you want your mutes to line up with a specific time division. Click the **Time Correct** drop-down menu and select a value from *1/16th* (sixteenth notes) to *2 bar* (2 bars). For example, with **Time Correct** set to *1 bar*, your mutes will always align with the beginning of the measure immediately after you press the pad.

Hardware: Press **F4 (Time Div)** and use the **Data Dial** or **-/+** buttons to edit the **Time Correct** value. Press **F5 (T.C.)** to activate or deactivate Time Correct. Press **F6 (Solo)** to solo the selected pad.

Track Group Mode

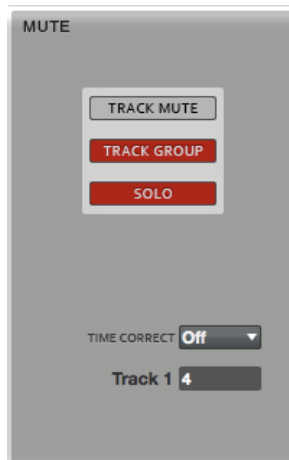
The Track Group feature extends the concept of Track Mutes: you can mute or unmute multiple Tracks simultaneously by hitting one pad that you have assigned to a Track Group. This is useful if you want to hear a Sequence without a particular group of Tracks or if you want to isolate specific Tracks in various combinations. You can create up to 16 different Track Groups.

In the software, do the following to use Track Groups:

1. Click the **Track Group** button in the **Mute** Section to activate it.
2. Click the desired bank (*A – H*) in the **Bank** section or **Pad Bank** section.
3. Click a pad in the **Pad Bank** section that you want to assign to a Mute Group.

Alternatively, you can click the the miniature pads in **Bank** section. This section gives you an overview of all 128 pads at the same time. Unused pads are grayed out.

4. Click and drag the **Track** ___ field in the **Mute** Section up or down to select the desired Mute Group number.



When a pad in a Mute Group is selected, the other pads in that same Mute Group will blink yellow.

Click the **Solo** button to solo the selected Track only, muting all other Tracks.

Hardware:

1. Press **F2 (TrkGroup)** to activate Track Group.
2. Hit a pad to select it. Use the **Pad Bank** buttons to switch between the 16 banks, if necessary.
3. Use the **Data Dial** or **-/+** buttons to select the desired Mute Group number.
When a pad in a Mute Group is selected, the other pads in that same Mute Group will blink yellow.
Press **F6 (Solo)** to solo the selected pad.

Time Correct lets you quantize Track Mutes. This is useful when you want your mutes to line up with a specific time division. Click the **Time Correct** drop-down menu and select a value from *1/16th* (sixteenth notes) to *2 bar* (2 bars). For example, with **Time Correct** set to *1 bar*, your mutes will always align with the beginning of the measure immediately after you press the pad.

Hardware: Press **F4 (Time Div)** and use the **Data Dial** or **-/+** buttons to edit the **Time Correct** value. Press **F5 (T.C.)** to activate or deactivate Time Correct. Press **F6 (Solo)** to solo the selected pad.

Project Information Section

This section is identical to the Project Information Section in Main Mode. For more information, please see the **Project Information Section** part of the **Main Mode** chapter.

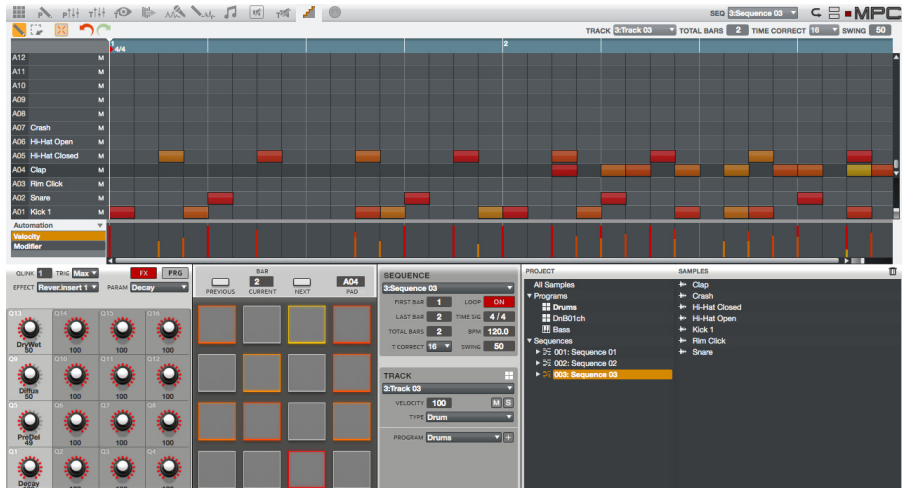
Step Sequence Mode



Step Sequence Mode lets you create or edit Sequences by using the pads as "step buttons," simulating the experience of a traditional step-sequencer-style drum machine.

In your software, click the **Step Seq** tab in the Mode Tab Section.

Hardware: To enter Step Sequence Mode, press the **Step Seq** button.



The upper half of the window contains the grid, showing the note events of the current Sequence.

The lower half of the window has various controls that are also available in other modes, like Main Mode. Please see the **Main Mode** section for more information about the Q-Link Knob Section, the Sequence Section, the Track Section, or the Project Information Section.

The only difference is the Pad Section, which you use to enter note events as you would with a traditional step sequencer. (This can be done when a Sequence is playing or stopped.) Please see the following **Pad Section** part of this chapter to learn how to do this.

Pad Section

This section lets you quickly create and delete note events as "steps" by using the pads of your MPC hardware or MPC software.

Tip: Using Step Sequence Mode is most useful for programming drums, emulating the step recording of drums as it was done with various drum machines from the 1980s.

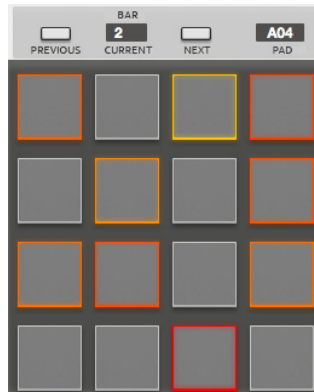
In the software, create or delete steps by doing the following:

1. First, click the **Track** drop-down menu above the grid or in the **Track** section to select a Track.
2. Select the pad whose steps you want create or edit by doing on the following:
 - In the Pad Section, click the **Pad** field and drag it up or down to select the pad number.
 - Click the pad's row in the grid.
3. Click the **Previous** or **Next** buttons to select the bar whose steps you want to edit. You can also click the **Current Bar** field and enter the number using your computer keyboard.
4. Each pad represents a step in the bar. Keep in mind that the number of steps depends on the **Time Correct** setting, which you can set in the **Sequence** Section. For time divisions larger than 16 (e.g., 32), the bar's steps will be represented by multiple pad banks. Use the Pad Bank Buttons A and B to view all the steps within a bar.

If the pad already has note events on the selected Track, the corresponding pads (steps) will be lit with colors corresponding to their velocities.

Click an unlit pad to enter a note event at that step. The pad will light up with a color corresponding to its velocity.

Click a lit pad to delete the note event from that step. The pad will be unlit.



Hardware: Create or delete steps by doing the following:

1. Use the **Cursor Buttons** to select the **Trk** field, and use the **Data Dial** or **-/+** buttons to select a Track.
2. Use **F5 (Pad-)** and **F6 (Pad+)** to select the pad whose steps you want to create or edit. The pad number and its sample name will appear in the upper-right corner of the display. Alternatively, you can use the **Cursor Buttons** to select the **Pad** field in the upper-right corner and use the **Data Dial** or **-/+** buttons to select a pad.
3. Use **F2 (Bar-)** and **F3 (Bar+)** to select the bar whose steps want to create or edit.
4. Each pad represents a step in the bar. Keep in mind that the number of steps depends on your **Time Correct** settings, which you can set by pressing **F1 (T.C.)**. For time divisions larger than 16 (e.g., 32), the bar's steps will be represented by multiple pad banks. Use the **Pad Bank Buttons A and B** to view all the steps within a bar. You can press and hold the **Note Repeat** button to change the time division of the Sequence grid and use the **F-buttons** to select the desired value.

If the pad already has note events on the selected Track, the corresponding pads (steps) will be lit with colors corresponding to their velocities.

Hit an unlit pad to enter a note event at that step. The pad will light up with a color corresponding to its velocity.

Click a lit pad to delete the note event from that step. The pad will be unlit.



Working with **Step Sequence Mode** in the MPC hardware display

MIDI Control Mode



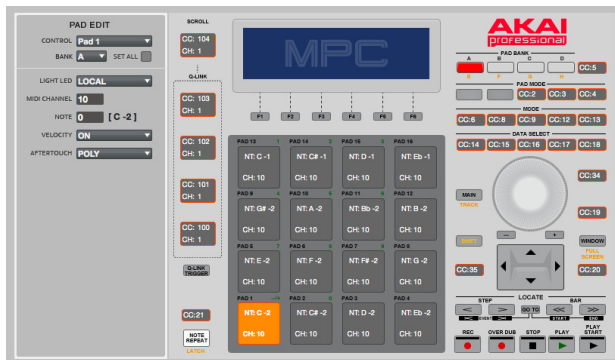
In MIDI Control Mode, you can customize what MIDI messages are sent from certain controls on your hardware. This custom "control map" will then work whenever you are in MIDI Control Mode. This is useful when using MPC as a plugin: you can use MIDI Control Mode to use your MPC hardware to control your host software, and then switch back to any other mode to control the MPC plugin.

Important:

- In your host software, make sure your MPC hardware is selected as a MIDI controller device.
- The edits you make in MIDI Control Mode will be retained with the current MPC Project. If you want to use the same control map for all of your Projects, we recommend saving your control map in your template file. See the **PREFERENCES: Auto Load/Save Tab** part of the **General Features** chapter for more information about template files.

In your software, click the **MIDI Control** tab in the Mode Tab Section.

Hardware: To enter MIDI Control Mode, press **Shift + Song / Other**.



The software window will display a graphical interface resembling your connected hardware controller. Editable controls display their current MIDI message. Controls outlined in red are identical across all eight pad banks. The pads are all editable, as well, and can be set to behave identically across all banks or differently in each bank.

To edit a control:

1. Select it by doing one of the following:
 - clicking it in the software
 - pressing or moving it on your hardware
2. In the **Edit** panel on the left side of the software window, set that controls' parameters to your preference. The available parameters depend on whether it is a Q-Link Knob, pad, or the type of button.
 - **Control** (all controls): This determines what message the control sends to the software (e.g., acting as a specific Q-Link Knob, acting as a specific pad, entering a specific mode, revealing or hiding the File Browser, Undo, Tap Tempo, etc.).
 - **Light LED** (all controls): This determines how the control's LED (or multiple LEDs) on the hardware will behave.
 - When set to *Never*, the LED will always be off.
 - When set to *MIDI Input*, the LED will light up when the software receives a MIDI message that matches that control.
 - When set to *Local*, the LED will light up when you use that control and/or MIDI input is received.
 - **MIDI Channel** (all controls): This determines over which MIDI channel (from 1 to 16) the control will send MIDI messages to the software.
 - **CC Number** (buttons and Q-Link Knobs only): This determines what Control Change the control will send to the software.
 - **Mode** (Q-Link Knobs only): This determines how the Q-Link Knob will control its parameter.
 - When set to *Absolute*, the Q-Link Knob's current position is what determines its parameter's value; moving the Q-Link Knob may cause its parameter to "snap" to a new position when using the Q-Link Knob to control different parameters between different modes.
 - When set to *Relative*, moving the Q-Link Knob will adjust its parameter upward or downward regardless of its position.
 - **Low Range** (Q-Link Knobs only): This is the Q-Link Knob's lowest possible value (0 to 127).
 - **High Range** (Q-Link Knobs only): This is the Q-Link Knob's highest possible value (0 to 127).

- **Touch Sense** (Q-Link Knobs only): This activates or deactivates the Q-Link Knob's touch-capacitive circuitry.
 - When set to *On*, you can touch the Q-Link Knob to send a Note On message to the software (this is how your MPC hardware normally works).
 - When set to *Off*, the Q-Link Knob will not send any Note On messages; it will only send CC messages when you turn it.
 - **Touch Note** (Q-Link Knobs only): This is the MIDI note number the Q-Link Knob will send to the software when you touch it (*0 – 127* or *C-2 to G8*). **Touch Sense** must be set to *On* for this to work.
 - **Type** (buttons only): This determines whether the button will behave as a *Momentary* switch or *Toggle* (latching) switch.
 - **Note** (pads only): This is the MIDI note number the pad will send to the software when you hit it (*0 – 127* or *C-2 to G8*).
 - **Bank** (pads only): This is the pad bank the pad belongs to. If you check the **Set All** box, the pad's messages and parameters will be identical across all eight banks.
 - **Velocity** (pads only): This determines whether the pad will be velocity-sensitive (*On*) or not (*Off*). When set to *Off*, hitting the pad will send a note at full-level (127) always.
 - **Aftertouch** (pads only): This determines how the pad's aftertouch (pressure applied to the pad after the initial hit) behaves.
 - When set to *Off*, the pad will not send any aftertouch messages.
 - When set to *Channel*, if you press multiple pads that have this setting, the aftertouch messages they send will be identical.
 - When set to *Poly*, if you press multiple pads, the aftertouch message each pads sends will be independent from the others'.
3. When you have set all of the parameters as desired, you can select another control or enter another mode.

Remember: The edits you make in MIDI Control Mode will be retained with the current MPC Project. If you want to use the same control map for all of your Projects, we recommend saving your control map in your template file. See the **Preferences: Auto Load/Save Tab** part of the **General Features** chapter for more information about template files.

Effects

The MPC software offers various effects for processing samples and sound Programs. These same instructions for loading and editing effects are also described in the **Program Mixer Mode** and **Track Mixer Mode** chapters, but this section can help you get a good overall understanding of how you can apply these effects.

Note: See the **Effects and Parameters** section of the **Appendix** for a list of all available effects (with a brief description of each) and their editable parameters.

Hardware: Whenever the cursor is on an effect's name, press the **Window** button to open a window where you can view and edit the effect's parameters using the **Data Dial** or **-/+** buttons.

Overview

You can apply effects to pads (in a Program), Tracks (in a Sequence), and/or the entire Master Mix. Below is an overview of how the software's effects work. Please also see the following sections (**Pad Effects**, **Track Effects**, and **Master Effects**) for more in-depth instructions about loading and editing effects.

Pads:

- In a Program, each pad can have up to four insert effects applied to it. This is done in Program Mixer Mode (where each channel represents a pad).
- Additionally, each pad can be sent to up to four send effects. You must load the send effects in Track Mixer Mode first. After that, set the pad's send level in Program Mixer Mode and set the effect's return level in Track Mixer Mode.

Tracks:

- Each Track can have up to four insert effects applied to it. This is done in Track Mixer Mode.
- Additionally, each track can be sent to up to four send effects. You must load the send effects in Track Mixer Mode first. After that, set the Track's send level and set the effect's return level (also in Track Mixer Mode).

Master:

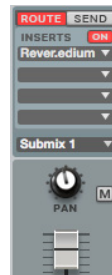
- You can add insert effects to the entire Master mix.

Pad Effects

Pad Insert Effects

To load and edit pad insert effects:

1. In the software, click the **Program Mixer** tab in the Mode Tab Section.
2. Click the desired pad's channel's **Route** button.
3. Click the button next to **Inserts** so it says *On*.
4. Click the downward arrow (▼) of the drop-down menu of the slot you want to assign an effect to. Select an effect from the window that appears.
Click a loaded effect name to open its graphic user interface to edit its parameters.



Hardware: To load and edit pad insert effects:

1. Enter Program Mixer Mode by pressing the **Prog Mix** button.
2. Press **F5 (Insert)** to view the pads' insert effect slots. (You can repeatedly press **F5 (Insert)** to cycle through the four available insert effect slots. The small squares below the tab indicate the currently selected slot.)
3. Use the **Cursor Buttons** to select the desired pad. (To show another set of 16 pads, use the **Pad Bank** buttons to select another bank.)
4. Use the **Data Dial** or the **-/+** buttons to open another page to select an effect. Click **F4 (Select)** to load it, or click **F3 (Back)** to close the page.

To edit an effect's parameters, use the **Cursor Buttons** to select the effect and press **Window**. Use the **Cursor Buttons** to select a parameter and use the **Data Dial** or **-/+** buttons to adjust it.

When you select a pad insert effect, it will automatically be routed to *Submix 1*. If you want, you can change where it is routed:

1. In the software, click **Program Mixer** tab in the Mode Tab Section.
2. Click the desired pad's channel's **Route** button.
3. Click the downward arrow (▼) of the drop-down menu above the pad's channel's **Pan** knob.
4. Select any one of the following outputs: the *Track Mixer*, *Submix 1 to 8*, or *Out 1,2 to Out 15,16*. The outputs that are not available in your audio hardware will be grayed out. If a loaded project has outputs routed that don't exist on your audio hardware, these will appear in red.

Remember: The MPC Renaissance offers the following physical outputs: *1,2* (main out) and *3,4* (assignable).

Pad Send Effects

Important: To use a send effect, you have to load an effect into the corresponding send effect slot in Track Mixer Mode.

To load and edit a pad send effect and set its levels:

1. In the software, click the **Track Mixer** tab in the Mode Tab Section.
2. In the **Send Effects** column on the right of the software window, under one of the **Return** slots, click the downward arrow (▼) of the drop-down menu of the slot you want to assign an effect to. Select an effect from the window that appears.
3. Click the knob for that **Return** slot and drag it up or down to set the effect level.
4. Click the **Program Mixer** tab in the Mode Tab Section.
5. Click the desired pad's channel's **Send** button.
6. Click the **Send** knob whose number corresponds to the **Return** slot and drag up or down to adjust the send level.

Click a loaded effect name to open its graphic user interface to edit its parameters.



Hardware:

To load a pad send effect and set its return level:

1. Press **Shift + Seq Edit / Effects**.
2. Use the **Cursor Buttons** to select the desired **Send** effect slot.
3. Use the **Data Dial** or the **-/+** buttons to open another page to select an effect. Click **F4 (Select)** to load it, or click **F3 (Back)** to close the page.
To edit an effect's parameters, use the **Cursor Buttons** to select the effect in the **Send** effect slot and press **F6 (Edit)**. Use the **Cursor Buttons** to select a parameter and use the **Data Dial** or **-/+** buttons to adjust it.
4. Use the **Cursor Buttons** to select the effect's **Level** parameter, and use the **Data Dial** or **-/+** buttons to set the return effect level.

After loading a send effect and setting its return level, set the level the pad sends to it:

1. Enter Program Mixer Mode by pressing the **Prog Mix** button.
2. Press **F4 (Send)** to view the pads' channels' send effect levels. (To show another set of 16 pads, use the **Pad Bank** buttons to select another bank. You can repeatedly press **F4 (Send)** to cycle through the four available insert effect slots. The small squares below the tab indicate the currently selected slot.)
3. Use the **Q-Link Knobs** to adjust the send level of the corresponding pads. Alternatively, use the **Cursor Buttons** to select the desired pad and use the **Data Dial** or **-/+** buttons to set the level.

Track Effects

Track Insert Effects

To load and edit Track insert effects:

1. In the software, click the **Track Mixer** tab in the Mode Tab Section.
2. Click the desired channel's **Insert** button.
3. Click the button next to **Inserts** so it says *On*.
4. Click the downward arrow (▼) of the drop-down menu of the slot you want to assign an effect to. Select an effect from the window that appears.

Click a loaded effect name to open its graphic user interface to edit its parameters.



Hardware: To load Track insert effects:

1. Enter Track Mixer Mode by pressing **Shift + Prog Mix / Track Mix**.
2. Press **F5 (Insert)** to view the channels' insert effect slots. (You can repeatedly press **F5 (Insert)** to cycle through the four available insert effect slots. The small squares below the tab indicate the currently selected slot.)
3. Use the **Cursor Buttons** to select the desired channel. (To show another set of 16 channels, select the **Track** field in the upper-right corner and use the **Data Dial** or the **-/+** buttons.)
4. Use the **Data Dial** or the **-/+** buttons to open another page to select an effect. Click **F4 (Select)** to load it, or click **F3 (Back)** to close the page.

To edit an effect's parameters, use the **Cursor Buttons** to select the effect and press **Window**. Use the **Cursor Buttons** to select a parameter and use the **Data Dial** or **-/+** buttons to adjust it.

Track Send Effects

Important: To use a send effect, you have to load an effect into the corresponding send effect slot in Track Mixer Mode.

To load and edit a Track send effect and set its levels:

1. In the software, click the **Track Mixer** tab in the Mode Tab Section.
2. In the **Send Effects** column on the right of the software window, under one of the **Return** slots, click the downward arrow (▼) of the drop-down menu of the slot you want to assign an effect to. Select an effect from the window that appears.
3. Click the knob for that **Return** slot and drag it up or down to set the effect level.
4. Click the desired channel's **Send** button.
5. Click the **Send** knob whose number corresponds to the **Return** slot and drag up or down to adjust the send level.



Click a loaded effect name to open its graphic user interface to edit its parameters.

Hardware:

To load a Track send effect and set its return level:

1. Press **Shift + Seq Edit / Effects**.
2. Use the **Cursor Buttons** to select the desired **Send** effect slot.
3. Use the **Data Dial** or the **-/+** buttons to open another page to select an effect. Click **F4 (Select)** to load it, or click **F3 (Back)** to close the page.

To edit an effect's parameters, use the **Cursor Buttons** to select the effect in the **Send** effect slot and press **F6 (Edit)**. Use the **Cursor Buttons** to select a parameter and use the **Data Dial** or **-/+** buttons to adjust it.

4. Use the **Cursor Buttons** to select the effect's **Level** parameter, and use the **Data Dial** or **-/+** buttons to set the return effect level.

After loading a send effect and setting its return level, set the level the Track sends to it:

1. Enter Track Mixer Mode by pressing **Shift + Prog Mix / Track Mix**.
2. Press **F4 (Send)** to view the channels' send effect levels. (To show another set of 16 channels, select the **Track** field in the upper-right corner and use the **Data Dial** or the **-/+** buttons. You can repeatedly press **F4 (Send)** to cycle through the four available insert effect slots. The small squares below the tab indicate the currently selected slot.)
3. Use the **Q-Link Knobs** to adjust the send level of the corresponding channels. Alternatively, use the **Cursor Buttons** to select the desired channel and use the **Data Dial** or **-/+** buttons to set the level.
4. Use the **Data Dial** or **-/+** buttons to set the return effect level.

Master Effects

To load and edit a Master insert effect:

1. In the software, click the **Track Mixer** tab in the Mode Tab Section.
2. In the **Master FX** section in the lower-right corner of the window, click the downward arrow (▼) of the drop-down menu of the slot you want to assign an effect to. Select an effect from the window that appears.

Click a loaded effect name to open its graphic user interface to edit its parameters.



Hardware:

To load a master insert effect:

1. Press **Shift + Seq Edit / Effects**.
2. Press **F5 (Insert)**.
3. Use the **Cursor Buttons** to navigate to the desired **Insert** effect slot.
4. Use the **Data Dial** or the **-/+** buttons to open another page to select an effect. Click **F4 (Select)** to load it, or click **F3 (Back)** to close the page.

Operation (Plugin)

When using the MPC software as a VST, AU, or RTAS plugin, its features and functions are very similar to its operation as your host software but with some notable differences discussed in this chapter.

Important: For information about using the MPC software as a standalone software program, please see the **Operation (Software)** chapter.

Note: To learn how to load and use an instrument plugin in a host application, please refer to the corresponding chapter of your host application's manual.

Differences Between the MPC Plugin and Standalone Application

Saving: Make sure to save your work *in the MPC software plugin* as well as saving all of your work in your host application. For ease of use, we recommend saving your host application projects and their associated MPC projects in the same folder.

Software Menus: The MPC plugin doesn't offer a top menu like in the standalone application. The menu button is located to the left of the **Main Mode** tab.



Audio Input and Output: Your audio input and output are set in your host application rather than in MPC. MPC's **Preferences** will not have the **Audio** tab.

MIDI Ports: All MIDI Out ports will be assigned to your digital audio workstation (DAW). In MPC's **Preferences**, the **MIDI** tab will display *DAW* as the only available MIDI Out port assignment.

DAW Projects Folder: In MPC's **Preferences**, the **Plugin** tab will let you select a **DAW Projects Folder** location.

Tempo and Sync: The MPC plugin is automatically synchronized to the tempo of your host application. MPC's **Preferences** will not have the **Sync** tab, and the **BPM** in the Transport Section will be grayed out.

Playback Controls: The **Stop**, **Play**, and **Play Start** buttons will be grayed out. You must start and stop playback using your host application's playback controls.

Playback Start and Stop: The start and stop commands are always synchronized to the host application. When the playback of the host application is started, the MPC plugin playback starts simultaneously.

Appendix

Keyboard Shortcuts

You can use the following computer keyboard shortcuts for the MPC software.

Cubase users: When running MPC as a plugin in Cubase, all keyboard shortcuts need to be combined with **ALT**.

Function	Control (Windows) Command (Mac OS X)	Alt	Shift	Alt+Control (Windows) Alt+Command (Mac OS X)
Main Grid, Select Box Tool	Click and drag to copy selected events.	Click background to switch to Eraser Tool.	Click and drag to add events to current selection.	
Track View, Region Mode	Click and drag to copy selected events.			
Main Grid, Pencil Tool	Click and drag to copy selected events.	Click background to switch to Eraser Tool.	Click and drag selected events without snapping to grid. Click events to add to current selection.	Click events to "send to back."
Real-time and Track Automation, Pencil Tool	Fine-edit value of selected events.	Click background to switch to Eraser Tool. Click and drag selected events with no time constraints.*	Click and drag selected events without snapping to grid.	
NT Automation, Pencil Tool	Fine-edit value of selected events.			
Select Box Tool			Click and drag to add events to current selection.	
Nudge grid events (using keyboard cursors)			Fine-edit nudge without snapping to grid (T.C.).	

* Normally, real-time automation event cannot move beyond the selected event group's previous or next event.

File Menu

Function	Control (Windows)	Command (Mac OS X)
New Project	Control + N	Command + N
New From Template	Control + Shift + N	Command + Shift + N
Save Project	Control + S	Command + S
Open Preferences	Control + ,	Command + ,

Edit Menu

Function	Control (Windows)	Command (Mac OS X)
Undo	Control + Z	Command + Z
Redo	Control + Y	Shift + Z
Cut	Control + X	Command + X
Copy	Control + C	Command + C
Paste	Control + V	Command + V
Duplicate	Control + D	Command + D

Miscellaneous

Function	Control (Windows)	Command (Mac OS X)
Select All	Control + A	Command + A
Play	Space + Shift	Space + Shift
Play from Start	Space	Space

Effects and Parameters

This chapter lists the available effects in the software. To learn more about how effects work in the software, please see the **Effects** chapter.

Note: Some of these effects have a "sync" version (e.g., *Flanger Sync*, *Autopan Sync*, etc.) whose rates will be affected by the current tempo. In the graphic user interface for these effects, a . next to the time division indicates a triplet-based rate.

Reverbs

Reverb Small

This is a spatial effect, designed to emulate a small room.

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	50	Q13
Pre-Delay	1 – 100	50	Q9
Early Reflection	0 – 100	50	Q5
Density	0 – 100	50	Q1
Diffuse	0 – 100	50	Q14
Decay	0 – 100	50	Q10
Lo-Cut	0 – 100	15	Q6
Hi-Cut	0 – 100	10	Q2

Reverb Medium

This is a spatial effect, designed to emulate a medium room.

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	50	Q13
Pre-Delay	1 – 100	50	Q9
Early Reflection	0 – 100	50	Q5
Density	0 – 100	50	Q1
Diffuse	0 – 100	50	Q14
Decay	0 – 100	50	Q10
Lo-Cut	0 – 100	15	Q6
Hi-Cut	0 – 100	10	Q2

Reverb Large

This is a spatial effect, designed to emulate the sound of a large hall.

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	50	Q13
Pre-Delay	1 – 100	50	Q9
Early Reflection	0 – 100	50	Q5
Density	0 – 100	50	Q1
Diffuse	0 – 100	50	Q14
Decay	0 – 100	75	Q10
Lo-Cut	0 – 100	10	Q6
Hi-Cut	0 – 100	10	Q2

Reverb Large 2

This is a less CPU-intensive spatial effect, emulating the sound of a large hall.

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	50	Q13
Pre-Delay	1 – 100	50	Q9
Early Reflection	0 – 100	50	Q5
Density	0 – 100	50	Q1
Diffuse	0 – 100	50	Q14
Decay	0 – 100	75	Q10
Lo-Cut	0 – 100	10	Q6
Hi-Cut	0 – 100	10	Q2

Reverb In Gate

This is a hall reverb with an additional control. The reverb effect is cut off when the input drops below the level set in the **Gate In** parameter.

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	50	Q13
Pre-Delay	1 – 100	50	Q9
Early Reflection	0 – 100	50	Q5
Density	0 – 100	50	Q1
Diffuse	0 – 100	50	Q14
Decay	0 – 100	75	Q10
Lo-Cut	0 – 100	15	Q6
Hi-Cut	0 – 100	10	Q2
Gate In	0 – 100	0	Q15

Reverb Out Gate

This is a hall reverb that has an additional control. The reverb effect is cut off when the output drops below the level set in the **Gate Out** parameter.

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	50	Q13
Pre-Delay	1 – 100	50	Q9
Early Reflection	0 – 100	50	Q5
Density	0 – 100	50	Q1
Diffuse	0 – 100	50	Q14
Decay	0 – 100	75	Q10
Lo-Cut	0 – 100	10	Q6
Hi-Cut	0 – 100	10	Q2
Gate Out	0 – 100	0	Q15

Delays

Delays the original signal for a specified period of time and plays it back over an adjustable period of time.

Delay Mono

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	50	Q13
Time	2 – 2000 ms	100	Q9
Feedback	0 – 100	25	Q5
Damping	0 – 100	100	Q1

Delay Mono Sync

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	50	Q13
Time	1 bar – 1/16 triplets	1/4	Q9
Feedback	0 – 100	25	Q5
Damping	0 – 100	100	Q1

Delay Stereo

Stereo Delay operates similarly to Mono Delay but in true stereo.

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	50	Q13
Time	2 – 2000 ms	100	Q9
Feedback	0 – 100	25	Q5
Damping	0 – 100	100	Q1

Delay Sync (Stereo)

Stereo Delay operates similarly to Mono Delay but in true stereo.

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	50	Q13
Time	1 bar – 1/16 triplets	1/4	Q9
Feedback	0 – 100	25	Q5
Damping	0 – 100	100	Q1

Delay LP

LP Delay is identical to the Mono Delay, but it uses a resonant low-pass filter in the delay line.

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	50	Q13
Time	2 – 2000 ms	500	Q9
Feedback	0 – 100	50	Q5
Cutoff	0 – 100	50	Q1
Resonance	0 – 100	20	Q14

Delay HP

HP Delay is identical to the Mono Delay, but it uses a resonant high-pass filter in the delay line.

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	50	Q13
Time	2 – 2000 ms	100	Q9
Feedback	0 – 100	50	Q5
Cutoff	0 – 100	33	Q1
Resonance	0 – 100	33	Q14

Delay Analog

Analog Delay is similar to Mono Delay, except that it's designed to sound like an analog "Bucket Brigade"-style delay. This delay has a unique character to it that gives a warmer sound by adding subtle inaccuracies in phase and timing.

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	50	Q13
Time	2 – 2000 ms	100	Q9
Feedback	0 – 100	25	Q5

Delay Analog Sync

Analog Delay is similar to Mono Delay, except that it's designed to sound like an analog "Bucket Brigade"-style delay. This delay has a unique character to it that gives a warmer sound by adding subtle inaccuracies in phase and timing.

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	50	Q13
Time	1 bar – 1/16 triplets	1/4	Q9
Feedback	0 – 100	50	Q5
Ramp	0 – 100	50	Q1

Delay Tape Sync

Tape Delay emulates a delay system using an analog tape loop and a series of tape heads to produce an echo effect. This delay type yields a very distinct echo sound often heard in reggae and dub-style music.

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	50	Q13
Time	1 bar – 1/16 triplets	1/4	Q9
Feedback	0 – 100	50	Q5
Ramp	0 – 100	50	Q1
Head 1	0 – 100	100	Q14
Head 2	0 – 100	0	Q10
Head 3	0 – 100	0	Q6
Head 4	0 – 100	0	Q2
Tone	0 – 100	50	Q15
Spread	0 – 100	50	Q11
Wow & Flutter	0 – 100	50	Q7

Delay Ping Pong

This stereo delay allows you to set different delay times for its left and right repeats.

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	50	Q13
Time, Left	2 – 2000 ms	100	Q9
Time, Right	2 – 2000 ms	100	Q5
Feedback	0 – 100	25	Q1
Damping	0 – 100	100	Q14

Delay Multi-Tap

This delay is a mono delay which has three delay generators with independently adjustable delay times and stereo position.

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	50	Q13
Time 1	2 – 2000 ms	100	Q9
Time 2	2 – 2000 ms	100	Q5
Time 3	2 – 2000 ms	100	Q1
Feedback	0 – 100	25	Q14
Pan 1	0 – 100	50	Q10
Pan 2	0 – 100	50	Q6
Pan 3	0 – 100	50	Q2
Damping	0 – 100	100	Q15
Gain 1	0 – 100	25	Q11
Gain 2	0 – 100	25	Q7
Gain 3	0 – 100	25	Q3

Flangers

A flanger is a modulated delay to emulate the sound created when running two analog tape machines in parallel with a slight time disalignment. Slow **Rate** settings can produce a "whooshing" jet engine sound, while faster rates result in more of a "warble."

Flanger

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Rate	0 – 100	10	Q9
Feedback	-100 – 100	0	Q5
Delay	0 – 100	20	Q1
Width	0 – 100	80	Q14

Flanger Sync

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Rate	8 bars – 1/16 triplets	1/4	Q9
Feedback	-100 – 100	0	Q5
Delay	0 – 100	20	Q1
Width	0 – 100	80	Q14

Chorus

A chorus effect uses an LFO to modulate the pitch and a delay of the input signal, which are then added to the dry signal. In small amounts, this creates the illusion of multiple voices playing at once. Turn up the **Feedback** and **Depth** for more pronounced "shimmering" and "watery" sounds.

Chorus 2-Voice

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Delay	0 – 100	20	Q9
Amount	0 – 100	80	Q5
Width	0 – 100	80	Q1
Feedback	0 – 100	50	Q14
Rate	0 – 100	10	Q10

Chorus 4-Voice

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Delay	0 – 100	20	Q9
Amount	0 – 100	80	Q5
Width	0 – 100	80	Q1
Feedback	0 – 100	50	Q14
Rate	0 – 100	10	Q10

Autopans

This effect uses an LFO to move the incoming signal back and forth across the stereo field, creating a rotary effect.

Autopan

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Rate	0 – 100	10	Q9

Autopan Sync

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Rate	8 bars – 1/32	1/4	Q9

Tremolos

This effect uses an LFO to increase and decrease the volume of the signal. Depending on the LFO shape, this can produce a smooth wave effect (sine wave) or a stuttering "on-off" effect (square wave).

Tremolo

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Rate	0 – 100	10	Q9
Sine to Square	0 (sine) – 100 (square)	0	Q5

Tremolo Sync

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Rate	1 bar – 1/16 triplets	1/4	Q9
Sine to Square	0 (sine) – 100 (square)	0	Q5

Phasers

The phaser is a classic effect, created by multiple ganged all-pass filters to create "notches," or sharp spikes, in the frequency spectrum. The frequencies of these all-pass filters are usually modulated by an LFO to create a sweeping sound.

Phaser 1

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Rate	0 – 100	10	Q9

Phaser 2

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Rate	0 – 100	10	Q9

Phaser Sync

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Rate	1 bar – 1/16 triplets	1/4	Q9

HP Filters

HP Filter

This effect is a static filter without modulation.

Parameter	Value Range	Default Value	Q-Link Knob Number
Frequency	10 – 19999 Hz	1500	Q13
Resonance	0 – 100	0	Q9

HP Filter Sweep

This effect is a high-pass filter with its cutoff frequency modulated by an LFO.

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	80	Q13
Low Frequency	0 – 100	50	Q9
High Frequency	0 – 100	100	Q5
Resonance	0 – 100	33	Q1
Rate	0 – 100	10	Q14

HP Filter Sync

This effect is a high-pass filter with its cutoff frequency modulated by an LFO.

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Low Frequency	0 – 100	0	Q9
High Frequency	0 – 100	100	Q5
Resonance	0 – 100	50	Q1
Rate	8 bars – 1/32	1/4	Q14

HP Shelving Filter

This filter differs from the standard filter type, as it attenuates all frequencies after the cutoff point equally.

Parameter	Value Range	Default Value	Q-Link Knob Number
Frequency	10 – 19999 Hz	1500	Q13
Resonance	0 – 100	0	Q9
Gain	-18.0 – 18.0 dB	0.0	Q5

LP Filters

LP Filter

This effect is a static filter without modulation.

Parameter	Value Range	Default Value	Q-Link Knob Number
Frequency	10 – 19999 Hz	1500	Q13
Resonance	0 – 100	0	Q9

LP Filter Sweep

This effect is a low-pass filter with its cutoff frequency modulated by an LFO.

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	80	Q13
Low Frequency	0 – 100	0	Q9
High Frequency	0 – 100	100	Q5
Resonance	0 – 100	33	Q1
Rate	0 – 100	10	Q14

LP Filter Sync

This effect is a low-pass filter with its cutoff frequency modulated by an LFO.

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Low Frequency	0 – 100	0	Q9
High Frequency	0 – 100	100	Q5
Resonance	0 – 100	50	Q1
Rate	8 bars – 1/32	1/4	Q14

LP Shelving Filter

This filter differs from the standard filter type, as it attenuates all frequencies after the cutoff point equally.

Parameter	Value Range	Default Value	Q-Link Knob Number
Frequency	10 – 19999 Hz	1500	Q13
Resonance	0 – 100	0	Q9
Gain	-18.0 – 18.0 dB	0.0	Q5

Parametric EQs

PEQ 2-Band, 2-Shelf

This effect is a combination of one two-band parametric equalizer and two shelving filters.

Parameter	Value Range	Default Value	Q-Link Knob Number
Low Frequency	22 – 1000 Hz	220	Q13
Frequency 1	82 – 3900 Hz	820	Q9
Frequency 2	220 – 10000 Hz	2200	Q5
High Frequency	560 – 19999 Hz	5600	Q1
Q1	0 – 100	0	Q14
Q2	0 – 100	0	Q10
Low Gain	-18.0 – 18.0 dB	0.0	Q15
Gain 1	-18.0 – 18.0 dB	0.0	Q11
Gain 2	-18.0 – 18.0 dB	0.0	Q7
High Gain	-18.0 – 18.0 dB	0.0	Q3

PEQ 4-Band

This effect is a powerful four-band parametric equalizer with four independent EQ ranges.

Parameter	Value Range	Default Value	Q-Link Knob Number
Low Frequency	22 – 1000 Hz	220	Q13
Frequency 1	82 – 3900 Hz	820	Q9
Frequency 2	220 – 10000 Hz	2200	Q5
High Frequency	560 – 19999 Hz	5600	Q1
Q1	0 – 100	5	Q14
Q2	0 – 100	5	Q10
Q3	0 – 100	5	Q6
Q4	0 – 100	5	Q2
Gain 1	-18.0 – 18.0 dB	0.0	Q15
Gain 1	-18.0 – 18.0 dB	0.0	Q11
Gain 2	-18.0 – 18.0 dB	0.0	Q7
Gain 4	-18.0 – 18.0 dB	0.0	Q3

Distortions

Distortion Amp

This effect is designed to reproduce the sound of a tube amplifier at high volumes.

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Drive	0 – 100	50	Q9
Tone	0 – 100	50	Q5
Dynamics	0 – 100	50	Q1
Output	0 – 100	50	Q14

Distortion Fuzz

This popular effect uses hard clipping of the audio signal, which, at extreme settings, can turn a standard waveform into a square wave, producing a "razor" effect.

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Drive	0 – 100	50	Q9
Output	0 – 100	50	Q5
Low	0 – 100	50	Q14
Low-Mid	0 – 100	50	Q10
High-Mid	0 – 100	50	Q6
High	0 – 100	50	Q2

Distortion Grimey

This is a unique distortion effect that distorts a frequency range in a selectable band.

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Drive	0 – 100	50	Q9
Grime	0 – 100	50	Q5
Center	0 – 100	50	Q1
Width	0 – 100	50	Q14
Resonance	0 – 100	50	Q10
Output	0 – 100	50	Q6

Distortion Overdrive

This distortion is designed to sound like a mildly distorting amplifier at medium volumes. It is the smoothest distortion type available.

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Drive	0 – 100	50	Q9
Tone	0 – 100	50	Q5
Output	0 – 100	50	Q1

Distortion Custom

This effect is a highly customized distortion, capable of a wide range of useable sounds.

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Drive	0 – 100	50	Q9
+Soft	5 – 75	2	Q14
+Clip	5 – 50	25	Q10
-Soft	5 – 75	2	Q6
-Clip	5 – 50	25	Q2
Low	-18.0 – 18.0 dB	0.0	Q15
Mid	-18.0 – 18.0 dB	0.0	Q11
High	-18.0 – 18.0 dB	0.0	Q7
Output	-18.0 – 18.0 dB	50	Q3

Compressors

A compressor is an effect that changes the dynamic range of a signal by automatically reducing its gain.

Compressor Master

This is the most transparent compressor, able to perform substantial volume adjustments without artifacts.

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Attack	0 – 100	50	Q9
Release	0 – 100	50	Q5
Threshold	-50 – 0 dB	0	Q1
Ratio	1 – 20	1	Q14
Oldskool	Off, On	Off	Q10
Output	-6 – 24 dB	0	Q6

Compressor Opto

The Opto Compressor is modeled after a vintage compressor type using an optical circuit to control the volume reduction of the input signal. These compressors are usually associated with soft and unobtrusive attack and release characteristics.

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Input	-6 – 18 dB	0	Q9
Attack	0 – 100	50	Q5
Release	0 – 100	50	Q1
Threshold	-50 – 0 dB	0	Q14
Ratio	1 – 20	1	Q10
Knee	1 – 100	1	Q6
Output	-6 – 24 dB	0	Q2

Compressor VCA

This compressor is more modern-sounding, with a slightly more transparent sound. A VCA Compressor tends to have quicker attack and release times than an Opto Compressor.

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Input	-6 – 18 dB	0	Q9
Attack	0 – 100	50	Q5
Release	0 – 100	50	Q1
Threshold	-50 – 0 dB	0	Q14
Ratio	1 – 20	1	Q10
Knee	1 – 100	1	Q6
Output	-6 – 24 dB	0	Q2

Compressor Vintage

This compressor has a sound similar to classic tube compressors, with their gentle yet pumping response and a dash of tube saturation.

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Input	-6 – 18 dB	0	Q9
Attack	0 – 100	50	Q5
Release	0 – 100	50	Q1
Threshold	-50 – 0 dB	0	Q14
Ratio	1 – 20	1	Q10
Knee	1 – 100	1	Q6
Output	-6 – 24 dB	0	Q2

Bit Reducers

Decimator

Decimator down-samples the incoming signal by removing bits from the digital signal. The difference between decimation and resampling is that Decimator does not use any filtering to mask or correct digital artifacts. The result is an effect ranging from mild to almost completely pure digital distortion, depending on the setting and the source material.

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Decimate	0 – 100	0	Q9
Bit Reducer	4 – 32	32	Q5

Resampler

Resampler is similar to Decimator in that it removes bits from an incoming signal. The difference is that Resampler applies a complex suite of filters and anti-aliasing to attempt to retain the original sound quality. This is a method used by popular vintage samplers and sampling drum machines from the 1980s. Resampler can be used to achieve a "dirty" sound on drum loops, without the harshness of distortion.

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Rate	0 – 100	0	Q9
Decimate	0 – 100	0	Q5

Other**Auto Wah**

This effect is a low-pass filter modulated by an envelope that yields a classic funky "wah-wah"- like sound. The envelope is triggered by the incoming signal's amplitude. The amount of the envelope on the cutoff frequency is user-definable.

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Resonance	0 – 100	75	Q9
Attack	0 – 100	30	Q5
Release	0 – 100	30	Q1
Center	0 – 100	50	Q14
Sensitivity	0 – 100	50	Q10

Frequency Shifter

A frequency shifter changes the frequencies of an input signal by a fixed amount and alters the relationship of the original harmonics. This can produce a chorus-like effect as well as very crazy artificial timbres.

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Frequency	-1000 – 1000	0	Q9
Asynchrony	0 – 1000	0	Q5
A Pan	0 – 100	0	Q14
B Pan	0 – 100	100	Q10
A Gain	0 – 100	75	Q6
B Gain	0 – 100	75	Q2

Transient Shaper

A transient shaper can be used to enhance or soften the Attack and Release phases of audio material.

Parameter	Value Range	Default Value	Q-Link Knob Number
Dry/Wet	0 (dry) – 100 (wet)	100	Q13
Attack	0 – 100	50	Q9
Release	0 – 100	50	Q5
Output	0 – 100	50	Q14

Glossary

A lot of the terms in this manual are based on the MPC parameter names. This glossary briefly explains many of the technical terms used throughout.

Aftertouch: The majority of contemporary keyboards are capable of generating aftertouch messages. On this type of keyboard, when you press harder on a key you are already holding down, a MIDI Aftertouch message is generated. This feature makes sounds even more expressive (e.g., through vibrato).

Aliasing: Aliasing is an audible side effect arising in digital systems as soon as a signal contains harmonics higher than half the sampling frequency.

Amount: Describes to which extent a modulation source influences a given parameter.

Amplifier: An amplifier is a component that influences the volume level of a sound via a control signal. It can be modulated by a control signal (e.g., generated by an envelope or an LFO).

Attack: An envelope parameter. This term describes the ascent rate of a time-relevant process (e.g., an envelope from its starting point to the point where it reaches its highest value). The Attack phase is initiated immediately after a trigger signal is received (e.g., after you play a note on a trigger pad or a keyboard).

Bit Rate: Bit rate (also known as **Word Length**), is the number of bits used to store the level information of each single sample slice within a whole sample. The higher the bit rate, the more precise the information about a sample (i.e., its dynamics' resolution). Normal audio CDs use 16-bit. MPC supports full 24-bit resolution.

Clipping: Clipping is a sort of distortion that occurs when a signal exceeds the maximum value that can be handled by a signal processing system it is fed into. The curve of a clipped signal is dependent on the system where the clipping occurs. In the analog domain, clipping effectively limits the signal to a given maximum level. In the digital domain, clipping is similar to a numerical overflow, resulting in negative polarity of the signal's portions exceeding the maximum level.

Control Change (Controllers): MIDI messages enable you to manipulate the behavior of a sound generator to a significant degree. This message essentially consists of two components:

- The controller number, which defines the parameter to be influenced. It can range from 0 to 127.
- The controller value, which determines the extent of the modification.

Controllers can be used for effects such as slowly swelling vibrato, changing the stereo panning position and influencing filter frequency.

Cutoff: The cutoff frequency is a significant factor for filters. A low-pass filter for example dampens the portion of the signal that lies above this frequency. Frequencies below this value are allowed to pass through without being processed.

Decay: Decay describes the descent rate of an envelope once the Attack phase has reached its maximum and the envelope drops to the level defined by the Sustain value.

Envelope: An envelope is used to modulate a sound-shaping component within a given time. For instance, an envelope that modulates the cutoff frequency of a filter opens and closes this filter over a period of time. An envelope is started via a trigger, usually a MIDI Note. The classic **ADSR** envelope consists of four individually variable phases: **Attack**, **Decay**, **Sustain**, and **Release**. Attack, Decay and Release are time or slope values, while Sustain is an adjustable level. Once an incoming trigger is received, the envelope runs through the Attack and Decay phases until it reaches the programmed Sustain level. This level remains constant until the trigger is terminated. The envelope then initiates the Release phase until it reaches the minimum value.

Filter: A filter is a component that allows some of a signal's frequencies to pass through it and dampens other frequencies. The most important aspect of a filter is the filter cutoff frequency. Filters generally come in four categories: low-pass, high-pass, band-pass, and band-stop. A low-pass filter dampens all frequencies above the cutoff frequency. A high-pass filter in turn dampens the frequencies below the cutoff. The band-pass filter allows only those frequencies around the cutoff frequency to pass; all others are dampened. A band-stop filter does just the opposite; it dampens only the frequencies around the cutoff frequency. The most common type is the low-pass filter.

LFO: LFO is an acronym for **low-frequency oscillator**. The LFO generates a periodic oscillation at a low frequency and features variable waveshapes. Similar to an envelope, an LFO can be used to modulate a sound-shaping component.

MIDI: MIDI stands for **musical instrument digital interface**. Developed in the early 1980s, MIDI enables interaction between various types of electronic music instruments from different manufacturers. At the time a communications standard for heterogeneous devices did not exist, so MIDI was a significant advance. It made it possible to link various devices with one another through simple, standardized connectors.

Essentially, this is how MIDI works: One sender is connected to one or several receivers. For instance, if you want to use a computer to play a MIDI synthesizer, the computer is the sender and the synthesizer acts as the receiver. With a few exceptions, the majority of MIDI devices are equipped with two or three ports for this purpose: MIDI In, MIDI Out and in some cases MIDI Thru. The sender transfers data to the receiver via the MIDI Out jack. Data are sent via a cable to the receiver's MIDI In jack.

MIDI Thru has a special function. It allows the sender to transmit to several receivers. It routes the incoming signal to the next device without modifying it. Another device is simply connected to this jack, thus creating a chain through which the sender can address a number of receivers. Of course it is desirable for the sender to be able to address each device individually. To achieve this, a MIDI channel message is sent with each MIDI event.

MIDI Channel: This is a very important element of most messages. A receiver can only respond to incoming messages if its receive channel is set to the same channel as the one the sender is using to transmit data. Subsequently, the sender can address specific receivers individually. MIDI Channels 1 through 16 are available for this purpose.

MIDI Clock: The MIDI Clock message transmits real-time tempo information to synchronize processes among several connected devices (e.g., a sound generator's delay time to a MIDI sequencer).

Modulation: A modulation influences or changes a sound-shaping component via a modulation source. Modulation sources include envelopes, LFOs or MIDI messages. The modulation destination is a sound-shaping component such as a filter or a VCA.

Note On / Note Off: This is the most important MIDI message. It determines the pitch and velocity of a generated note. A Note On message will start a note. Its pitch is derived from the note number, which can range from 0 to 127. The velocity lies between 1 and 127. A velocity value of 0 is equivalent to a Note Off message.

Normalize: Normalize is a function to raise the level of a sample to its maximum (0 dB) without causing distortion. This function automatically searches a sample for its maximum level and consequently raises the entire sample's level until the previously determined maximum level reaches 0 dB. In general this results in a higher overall volume of the sample.

Panning: The process or the result of changing a signal's position within the stereo panorama.

Pitchbend: Pitchbend is a MIDI message. Although pitchbend messages are similar in function to control change messages, they are a distinct type of message. The resolution of a pitchbend message is substantially higher than that of a conventional Controller message. The human ear is exceptionally sensitive to deviations in pitch, so the higher resolution is used because it relays pitchbend information more accurately.

Program: A Program is a file that contains a list of all samples to be used, and settings for each sample (e.g., pad assignments, loop points, pitch tuning, effects, etc.) MPC's Program Edit Mode is where you can edit and assign samples. The software can have a total of 128 Programs in a Project.

There are two kinds of Programs that use samples for their sound source: Drum Programs, mostly used for creating Drum Programs and easy and quick assigning of samples to a pad, and Keygroups Programs. With Keygroup Programs, you can use one sample (or more) and spread it across two or more keys and play the sample chromatically over a keyboard. That way, there is no need to sample every key of, for instance, a piano.

Program Change: These are MIDI messages that select sound Programs. Program numbers 1 through 128 can be changed via program change messages.

Release: An envelope parameter. This term describes the descent rate of an envelope to its minimum value after a trigger is terminated. The Release phase begins immediately after the trigger is terminated, regardless of the envelope's current status. For instance, the Release phase may be initiated during the Attack phase.

Resonance: Resonance or emphasis is an important filter parameter. It emphasizes the frequencies around the filter cutoff frequency by amplifying them with a narrow bandwidth. This is one of the most popular methods of manipulating sounds. If you increase the emphasis to a level where the filter enters a state of self-oscillation, it will generate a relatively pure sine waveform.

Root Key: The root key defines the original pitch of a recorded instrument or of a sample. Samples in the software contain the dedicated root key information. This information will be created automatically during recording or importing.

Sample: When you tap the pads on your MPC hardware, you can trigger sounds that we call **samples**. Samples are digitized snippets of audio that can either be recorded using the recording function of your MPC software or loaded from the File Browser.

Once a sample is present in the software, it can be manipulated in different ways. For example, a sample can be trimmed, looped, pitch-shifted or processed, using various effects offered by the software. When you have finished editing your sample, you can assign it to one or more drum pads to play it. Samples can be either mono or stereo.

Sample Rate: This is the frequency representing the amount of individual digital sample scans per second that are taken to capture an analog signal digitally. For normal CD audio recordings, 44100 samples per second are used, also written as **44.1 kHz**. The software offers sampling rates up to 96 kHz.

Sequence: A Sequence is the most basic building-block of music you can compose on the software. MIDI information from your MPC hardware's pads, buttons, and Q-Link Knobs (or an external keyboard) are recorded to the Tracks of a Sequence. Each Sequence has 64 Tracks. The software can hold up to 128 separate Sequences at the same time.

The length of a Sequence can be set from 1 to 999 bars, which would be enough to create an entire Song using only one Sequence. However, the software has a dedicated Song Mode that lets you chain Sequences together to create a Song.

Song: The software has a special Song Mode that allows you to arrange different sections (verse, chorus, hook, etc.) in order to build a Song. Each Song can have up to 250 parts and the software can hold 20 Songs in its memory.

Sustain: This term describes the level of an envelope remaining constant after it has passed the Attack and Decay phases. Once reached, the Sustain level is kept until the trigger is terminated.

Track: A Sequence offers 64 Tracks and each Track can record notes and controller data. For example, you can record the verses of a Song on Track 1, while recording the choruses on Track 2. Alternatively, you can record different instruments on each Track.

Note that your performances are recorded as MIDI events and the actual digital audio is not recorded onto a Track. That way, you can edit your performance in many different ways once the performance has been captured.

Trigger: A trigger is a signal that initiates events. Trigger signals are very diverse. For instance, a MIDI note or an audio signal can be used as a trigger. The events a trigger can initiate are also very diverse. A common application for a trigger is its use to start an envelope.

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